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ABSTRACT

Papers in these proceedings are organized into four sections: (1) Research Studies in Aging; (2) Innovative Approaches in Geriatric Education; (3) Faculty Development Models; and (4) "The Publication Process: Perils and Pearls" (Workshop). Clinical Experiences: Design Not Chance" (Matzo); "The Development of a Collaborative Gerontological Research Agenda among University Researchers and Health Care Providers" (Douglas, Terry); "Geriatric Education: An Impact Evaluation of a Geriatric Program" (Johnson, Moore, Fox); "Health Needs in a Selected Group of Rural Elderly" (Brown, Stokes); "Implications of Kentucky's Aging Labor Force for Human Resource Development Policy" (Barber, Crouch, Merker); "Long-Term Care Financing and the Rationing of Care" (Samuel, Bowlyow); "Older Adults Pioneer Wellness with Interactive Television" (Wroblewski); "Bringing Aging Theory into Research Instruction: A Study Using Older Volunteers" (Turner); and "Self-Reported Memory Problems among Black Elderly" (Bazargan, Barbre). Papers on innovative approaches in geriatric education include "Using the Humanities to Educate Students: Images of Caregivers in Poetry and Prose" (Kautzmann); "The Development and Use of Gaming in Multidisciplinary Geriatric Education" (Kues et al.); "Using Adult Learning Techniques to Enhance Student Acceptance of New Curricula in Gerontology/Geriatrics" (Saxe et al.); "Use of a Two-Day Geriatric Dentistry Workshop as a Combination Teaching Tool and Resource Base for Geriatric Educators and Clinicians" (Ceridan, Stewart, Thibault); "Nursing Management of Acutely Ill Elders with Alzheimer's Disease" (Walker, Fuller); "A Unique Teaching Opportunity: A Specialized Facility for Persons with Alzheimer's Disease" (Gilster, McCracken); "Examination of the Role of a Hospital-based Geriatric Psychiatric Unit for Enhancing the Professional Preparation of Social Workers" (Stewart, Dunn, Stewart); "A Multidisciplinary Educational Initiative

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Ohio Valley Appalachia Regional Geriatric Education Center

1990 Summer Geriatric Institute

DEVELOPING LEADERSHIP IN GERIATRIC EDUCATION

An Annual Faculty Institute

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The Ohio Valley Appalachia Regional Geriatric Education Center

OVAR

Developing Leadership in Geriatric Education

Proceedings of the Fifth Annual Summer Geriatric Institute

Davis L. Gardner, Editor
Gari-Anne Patzwald, Assistant Editor

Proceedings

July 23-25, 1990
Lexington, Kentucky

The Summer Geriatric Institute is funded in part by the USDHHS, Health Resources and Services Administration, U. S. Public Health Services, Bureau of Health Professions

PREFACE

The Fifth Summer Geriatric Institute was conducted by the Ohio Valley Appalachia Regional Geriatric Education Center [OVAR/GEC] at the Hyatt Regency in Lexington, Kentucky, July 23-25, 1990. Each year since the initial Institute in 1986, the goal of the OVAR/GEC Institutes has been to stimulate faculty development in geriatrics, and the Institutes have focused on the theme of **DEVELOPING LEADERSHIP IN GERIATRIC EDUCATION**. This theme expresses the intent of the Geriatric Education Centers [GECs] across the country that are funded by the U. S. Department of Health and Human Services' Bureau of Health Professions, Health Resources and Services Administration.

The OVAR/GEC is a unique consortium offering a variety of programmatic activities and resources in geriatric education. The five consortium members are the Universities of Cincinnati, Kentucky, and Louisville; and East Tennessee State and West Virginia Universities. The consortium is administratively based at the University of Kentucky Chandler Medical Center in Lexington, KY.

The presentations by invited faculty and the concurrent paper sessions by the authors of refereed papers resulted in a very balanced and successful Institute. Adequate time for interaction outside of formal sessions enhanced the interaction among the 100 faculty members and clinicians who registered and who represented a variety of health care professions from 39 institutions in 20 states. The participants' evaluations commented on the value of the "mix" of disciplines attending, the networking, the variety of topics presented, the validation they received for their interest and work in geriatrics, the resources provided, the people they met, and the smooth organization of the Institute.

The sessions of the Institute were designed to meet the Institute's six primary goals that were identified in the October 1989 planning meeting in Johnson City, TN:

1. to expand faculty leadership in geriatric/gerontologic education and networking among academic, clinical, and preceptor instructors in the health professions;

2. to provide an interactive forum for the discussion of issues related to developments in long term care and their impact on geriatric/gerontologic education;

3. to enhance knowledge and understanding of innovative approaches in classroom and clinical instruction and of program and faculty development strategies in geriatric/gerontologic education;

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4. to increase interdisciplinary cooperation through interdisciplinary exchanges concerning the concept and issues of geriatric/gerontologic education;

5. to enhance knowledge of current research in areas of geriatric/gerontologic interest and to promote research and publication by geriatric/gerontologic educators; and

6. to provide each participant with a Summer Geriatric Institute notebook that offers valuable resource information and materials on each Institute session.

The presentations given at the Institute's four plenary sessions are not part of the Proceedings. "Geriatric Education for Long-Term Care Clinical Experiences" was the topic of the keynote address given by May L. Wykle, RN, PhD, FAAN, Director of the University Center on Aging and Health, and Professor of Gerontological Nursing at Case Western Reserve University's School of Nursing. As a follow-up to Dr. Wykle's address, representatives from medicine, nursing, dentistry, health administration, social work, and pharmacy discussed long-term care clinical placements for their students.

"Treating the Older Person as an Individual in the Health Care Setting" was the topic for the second plenary session given by Ronald C. Hamdy, MD. Dr. Hamdy, a British-trained geriatrician, is Chief of the Division of Gerontology, Department of Internal Medicine at East Tennessee State University, Johnson City. The third plenary session focused on "Neurologic Disorders" and was presented by Thomas R. Price, MD. Dr. Price is a Professor in the Department of Neurology, University of Maryland Hospital in Baltimore. The Institute's final plenary address was presented by Neal S. Bellos, PhD, Professor in the School of Social Work at Syracuse, New York. Dr. Bellos' topic was "Healthy Aging."

Four workshops were presented by invited faculty and are not included in the Proceedings. "Stress and Anxiety in Aging" was given by Steven Giles, PhD, Chief of Psychology Services at the Veteran Affairs Medical Center, Mountain Home, TN. James Walsh, PhD, Director of the Sleep Disorders and Research Center, Deaconess Hospital, St. Louis, MO, conducted the workshop on "Sleep Disorders in the Elderly." "Alcohol/Substance Abuse and Aging" was the workshop topic for Arthur Sullwold, MD, Medical Director of the Outpatient Comprehensive Addiction Treatment Services in Ocala, FL. Tom Hickey, DrPH, Faculty Associate of the University of Michigan's Institute of Gerontology, conducted the workshop on "Health Care Behaviors of Older People." Dr. Hickey will become President of the Gerontological Society of America at the Society's November meeting.

The 1990 Proceedings is organized into four topical sections: Research Studies in Aging papers are in Section I; papers on Innovative Approaches in Geriatric Education are in Section II; and papers on Faculty Development Models are in Section III. Section IV contains the material submitted for the workshop on "The Publication Process: Perils and Pearls." The specific objectives for each session, as stated in the Institute notebook, precede the papers in each section. An index of presenters concludes the Proceedings.

Papers in the **Proceedings** are printed from copies provided by the authors. Institutional affiliations are identified in the Table of Contents, each section's introductory page, and the Index of Presenters. If you desire more information about the paper(s), please correspond directly with the author(s).

Selected authors of the refereed paper presentations published in the **Proceedings** have been invited to expand their papers for publication in **Educational Gerontology: An International Bimonthly**, Volume 18, Number 2. The projected publication date is January 1992. Selected papers from the OVAR/GEC 1988 and 1989 Summer Geriatric Institutes were published respectively in **Educational Gerontology**, Volume 15, Number 4, 1989 and Volume 6, Number 5, 1990.

The OVAR/GEC annual Institutes are made possible by federal grant support, by participant registration fees, and by support from the consortium's member institutions. In addition, educational grants were received for the 1990 Institute from Upjohn Pharmaceuticals and Abbott Laboratories. The interest these two firms have in faculty development in geriatrics and their contributions to the 1990 Summer Geriatric Institute are appreciated.

We sincerely thank all who attended, all who moderated sessions, and all who contributed their time and talents to make the 1990 Summer Geriatric Institute a successful one! The excellent support from Arleen Johnson--OVAR/GEC Project Manager, OVAR/GEC staff--June Horn and Alice Clark, Linda C. Brasfield--OVAR/GEC Co-Director, the OVAR/GEC Institutional Representatives, the OVAR/GEC Core Faculty members, and OVAR/GEC Director Dr. William R. Markesbery demonstrates what teamwork can accomplish.

Davis L. Gardner
OVAR/GEC Co-Director, and
Summer Geriatric Institute Director

Gari-Anne Patzwald
OVAR/GEC Information Specialist

August 1990

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I.

RESEARCH STUDIES IN AGING: PART 1

Objectives:

1. Identify opportunities for the inclusion of research skills training in undergraduate health professions clinical education.
2. Develop a plan for creating cooperative gerontological research relationships between health care providers and university researchers.
3. Describe an impact evaluation that explores the factors affecting the attendance of faculty and health providers at geriatric education programs.

Authors:	**Topic**:
*Marianne Matzo, MS, RNC Saint Anselm College	Integrating Research Into Clinical Experiences: Design Not Chance
*Pamela K. Terry, MS *Vickie L. Douglas, PhD Illinois State University	The Development of a Collaborative Gerontological Research Agenda Among University Researchers and Health Care Providers
*H. Arleen Johnson, PhD Robert W. Moore, PhD University of Kentucky	Geriatric Education: An Impact Evaluation of a Geriatric Program
Robert D. Fox, EdD University of Oklahoma	

*Denotes Presenter

Title: INTEGRATING RESEARCH INTO CLINICAL EXPERIENCES: DESIGN NOT CHANCE
Author: Marianne Matzo, MS, RNC
Institution: Saint Anselm College, Manchester, NH

The Department of Nursing at Saint Anselm College revised its curriculum three years ago and incorporated "gerontological strands" of content as part of a Health and Human Services, Division of Nursing Special Projects Grant (D10NU21084). These strands started in the first sophomore course and were built upon throughout the next three years. Students were receiving didactic information related to nursing considerations of the older adult without senior level experiential assignments.

The American Nurses Association (ANA) states that the baccalaureate level nursing students should be able to: 1) evaluate research findings, 2) identify nursing problems that need investigation, 3) use nursing practice to gather data, and 4) apply and share research findings.[1] Generally, these objectives are met via a didactic approach or through the students' critique of published research reports. A review of the literature indicates these approaches have been found to be ineffective in teaching the value of research. The ANA objectives are better met by way of direct involvement.

A new senior level clinical rotation has been incorporated into the curriculum to address these discrepancies. Students now spend two of their psychiatric nursing clinical days in a long term care setting. In addition to other objectives, they are involved in data collection for a group research project.

The research proposal was written by this author who served as the clinical instructor. It took into consideration student educational level, clinical placement, and the research skills they needed to master. The chosen topic was one that would interest students and have an impact on their clinical practice. The research question was: "Of clients labeled with senile dementia or confusion, how many have a treatable cognitive impairment?" This question was chosen to help students understand confusion as a symptom and not a diagnosis.

The introduction, definition of terms, limitations, review of the literature, method and instrumentation were written and assigned as required readings prior to the clinical rotation. Students' role in the research project was data collection. As part of their two-day external rotation in a geropsychiatric setting, they completed a thorough health assessment of a confused elder. For purposes of this study, elders were chosen based on the documented medical 'diagnosis' of confusion or senile dementia.

The assessment tool, "Differential Diagnosis of Confusion," had been developed over the last five years by this author.[2] Nursing assessment includes historical data relative to the onset of the symptom of confusion, exposure to environmental toxins, history of psychiatric disorders, alcohol and substance abuse. All medications are documented, including prescribed and over-the-counter as well as documentation of relief of the clients' symptoms. A complete review of systems was executed, often the first complete physical exam the students perform.

Neurological data include the Mini-Mental Status[3] exam, the face-hand test[4], and assess-

ment of judgement and abstraction. Special cortical functions are assessed by asking the client to draw a clock (assessment for dimension and proportion) and to draw a house (spatial manipulation)[5]. A functional health pattern assessment is completed taking into consideration the clients' mental status.[6] The dates and results of laboratory tests are documented.

These data were then used to determine if the nursing diagnosis of altered thought process was related to treatable or untreatable etiologies. The completed assessment became part of the clients' nursing home records. The students completed thirty-two assessments over the course of the academic year. Of those, they determined 66% had a nursing diagnosis of altered thought process related to organic involvement while 34% were related to treatable etiologies.

Descriptive statistics were used to summarize the collected data. The corresponding percentages were shared with students in a seminar format at the end of each semester. In this format, students were asked to interpret the findings, formulate conclusions, and offer recommendations.

Students concluded that the current assessment practices in the long term care setting were inadequate to differentiate between treatable and untreatable processes precipitating the symptom of confusion. The incidence of the diagnosis of altered thought process related to depressive symptoms (21%) indicated to them the importance of psychological assessment in long term care.

The students were very thoughtful in the recommendations that they made. They felt the client would be better served if administration would facilitate the collaborative milieu and provide staff education relative to the confused older adult. They recommend that confusion not be written as a diagnosis and that the psychiatric referral process be better utilized. Also, they would like to work to educate the public not to accept the label of confusion but to demand further evaluation of family members.

Recommendations for further research included evaluation and validation of the assessment tool. They also suggested a study that would compare the monetary cost of the complete assessment on a confused elder to the cost of caring for a person with untreated confusion.

At the end of the clinical rotation the students verbalized a sense of independence and confidence in their skills. They reported the clinical experience as being highly beneficial to their development as professional nurses. Additionally, they perceived a positive change in how they relate to elders in their clinical practice. The experience offered them a true bridge experience between their role as a student and that of a graduate nurse.

This experience utilized only two days of the clinical rotation. Given this relatively small allocation of time in the curriculum, all of the ANA objectives relative to research were met. The link between research and the nursing process is experienced first hand in a concrete, manageable clinical experience. Research should be integrated into clinical experiences; the experiential component brings meaning and value to the research process.

REFERENCES

[1] Larson, E. (1989). Using the CURN project to teach research utilization in a baccalau reate program. Western Journal of Nursing Research, 11,(5): 593-599.

[2] Matzo, M. Confusion in older adults: assessment and differential diagnosis, The Nurse Practitioner, for publication in September, 1990.

[3] Folstein, M.F., Folstein, S.E. and McHugh, P.R. (1975). Mini-Mental State - a practical method for grading the cognitive state of patients for the clinician. Journal Psychiatric Research, 12)3: 189-198.

[4] Anderson, D.J. (1981). Confusion in the elderly: a protocol to determine acute organic brain syndrome versus chronic brain syndrome, in Wolanin, M.O. and Phillips, L.R.F. Confusion, Prevention and Care, St. Louis: C.V. Mosby, 393-395.

[5] Zarit, S.H. (1980). Aging and Mental Disorder. New York: The Free Press.

[6] Fabiszewski, K. (1984). "The silent epidemic." Oral presentation at Middlesex County Hospital.

The author would like to thank the class of 1990 nursing majors for their involvement in this project.

The Development of a Collaborative Gerontological Research Agenda Among University Researchers and Health Care Service Providers

Vickie L. Douglas, Ph.D., Assistant Professor, Department of Health Sciences, College of Applied Science and Technology, Illinois State University, Normal, Illinois 61761, U.S.A. and

Pamela K. Terry, M.S., CHES, Assistant Director, BroMenn/ISU Consortium on the Study of Aging, Illinois State University, Normal, Illinois 61761, U.S.A.

Background

The non-profit BroMenn/Illinois State University (ISU) Consortium on Aging is comprised of Illinois State University faculty/researchers and BroMenn Health Care service providers. ISU is a multipurpose public institution with 22,000 students at the undergraduate (19,000) and graduate (3,000) levels. The university offers an interdisciplinary minor in gerontology and its faculty conducts numerous research and service projects on aging. BroMenn Health Care, a local private medical facility, provides a variety of clinical services including acute hospital care, long term care, hospice facilities, outpatient services, adult day care, wellness center programs, and social services for older adults. The Mennonite College of Nursing with a faculty of thirteen is also an integral part of BroMenn Health Care.

In 1987, the two institutions entered into a formal agreement to provide comprehensive educational, research, clinical, and public service programming for the senior population of Central Illinois. The BroMenn/ISU Consortium on Aging was established to encourage collaborative applied gerontological research among the ISU faculty/researchers and BroMenn Health Care service providers.

To meet the goal of increasing collaborative applied gerontological research, a joint study group was formed. Currently, the Gerontology Study Group consists of over 100 faculty/researchers and service providers from Illinois State University, BroMenn Health Care, and Mennonite College of Nursing. The Gerontology Study Group has met six times per academic year and focused on selected topics related to gerontology research and service. The Gerontology Study Group identified five collaborative research projects in Spring 1989 from invited proposals of ISU faculty/researchers.

Purpose

The purpose of this project was to provide technical assistance to five ISU faculty/researchers while they identified appropriate funding sources; clarified research problems; and designed research methodologies; and developed gerontological research proposals. The technical assistance provided to the faculty/researchers was defined by the individual research needs of the five faculty/researchers and included; (1) further clarification of the research agendas; (2) identification of additional sources of research literature; (3) identification of appropriate funding sources; (4) review of instrumentation procedures; and (5) revision of National Institute of Health proposal.

Research Questions

1. What are the previous research experiences of the faculty/researchers?
2. What previous funding sources have been utilized by faculty/researchers to support research projects?
3. What resources for gerontological research are available to faculty/researchers at ISU associated with the BroMenn/ISU Consortium on Aging?
4. What accomplishments will each of the five faculty/researchers complete during the Gerontology Grant Proposal Preparation Project?

Methodology

The research design is best described as an evaluative study involving both formative and summative evaluation principles. Several instruments were developed for the purpose of the study.

Results

The results of the study have been organized by the specific research questions; (1) What are the previous research experiences of the faculty/researchers; (2) What previous funding sources have been utilized by the faculty/researchers, (3) What resources are available for gerontological research to faculty/researchers at ISU; and (4) What accomplishments were completed by each of the five faculty/researchers during the Gerontology Grant Proposal Preparation Project?

Question 1. What are the previous research experiences of the faculty/researchers?

The previous research experiences of the faculty/researchers have been conducted on a small scale with several of the research populations limited to the state of Illinois or to smaller segments of the state. The limited volume of previous research conducted by the faculty/researchers could be related to the heavy teaching responsibilities of faculty during Fall and Spring Semesters which consist of three to four different courses per semester. Supplemental teaching contracts are offered to faculty for summer employment on a limited basis.

Question 2. What previous funding sources have been utilized by faculty/researchers?

The three main sources of funding for previous research included University sponsored sources of funding; (1) Illinois State University Research Grant Program with a maximum of $4000; (2) Illinois State University Small Grant Program for Research with a maximum of $1,000; and (3) College-Based Faculty Grants of less than $1000.

Question 3. What resources for gerontological research are available to faculty/researchers at ISU?

The administrative support for the management of grant-funded research was in the process of being decentralized from one office (the Office of Research and Sponsored Programs) to the level of college administration. Each of the five academic colleges -- College of Applied Science and Technology; College of Arts and Sciences; College of Business; College of Education; and College of Fine Arts has at least one part-time faculty member designated to administrating the research activities for their respective college.

Funding for the faculty/researchers stipends was provided by the Dean of Graduate Studies and administered through the BroMenn/ISU Consortium on Aging.

Question 4. What accomplishments will each of the five faculty/researchers complete during the Gerontology Grant Proposal Preparation Project?

The technical assistance provided by the Postdoctoral Fellow in Applied Gerontology was defined by the individual research needs of each of the five faculty/researchers and is summarized below:

Researcher 1 reviewed and revised a grant proposal for resubmission to the National Institute of Health on "Calcium and Phosphorus Excretion in Female Athletes and Non Athletes." The researcher also revised and resubmitted a manuscript to the International

Journal of Nutrition as documentation of the results of her preliminary study.

Researcher 2 further developed a proposed research agenda on "housing and the elderly" by (1) identifying an appropriate funding source; (2) establishing and ongoing working relationship with the East Central Illinois Area Agency on Aging, and (3) identifying sources of community support to assist elderly residents who are aging in place.

Researcher 3 made great advances in the research agenda on Caregiving in Long Term Care Settings by (1) identifying an appropriate funding source; (2) modifying a questionnaire to be included in the three interview schedules of family caregivers, Long Term Care residents, and nursing staff; and (3) identifying Long Term Care facilities for potential data collection.

Researcher 4 further developed a research agenda relating to clothing needs of the elderly and disabled. The researcher was able to; (1) further clarify her research focus comprised of various interrelated facets regarding apparel for the aging; (2) identify additional sources of research literature in the areas of business, marketing, applied computer science, rehabilitative medicine, and gerontological nursing; and (3) conduct a focus group with service providers of the Department of Rehabilitation, BroMenn Health Care to collect data concerning adaptive devices and techniques related to clothing needs of older adults and/or rehabilitated patients.

Researcher 5 learned that the research focus was not clearly defined and additional review of up-to-date research literature was needed to further develop the research proposal before it could be considered for support through an external funding source.

Conclusion and Implications

The results of this evaluative/research study have implications for similar studies that could be conducted in a variety of settings including agencies and organizations; health care settings; and various aspects of academia including programs, departments, or colleges. The development of collaborative research agendas among multiple universities could also be a possible setting for replication of this study.

This study was conducted under the auspices of The Gerontological Society of America's Fellowship Program in Applied Gerontology and funded by the Retirement Research Foundation

Title: Geriatric Research: An Impact Evaluation of a Geriatric Program
Authors: H. Arleen Johnson, PhD; Robert W. Moore, PhD; Robert D. Fox, EdD
Institution: University of Kentucky

BACKGROUND

The Ohio Valley Appalachia Regional Geriatric Education Center (OVAR/GEC) has been funded since 1985 by the U.S. Department of Health and Human Services as part of a national geriatric education network which offers education and training opportunities for health professionals and other personnel to enhance the availability and quality of health care for older adults. The OVAR/GEC is composed of five universities (East Tennessee State University, West Virginia University, and the Universities of Cincinnati, Kentucky, and Louisville) covering a four-state area of central Appalachia. During the project period, the OVAR/GEC has offered a variety of geriatric education programs to interdisciplinary audiences composed of geriatrics faculty and service providers from allied health, dentistry, medicine, nursing, pharmacy, and social work,

The evaluation of geriatric education activities is an integral part of the mission of each center, and is vital for the provision of on-going information for program leaders and steering committees (Koenig, Gleich, & Zwick, 1988.) There is a long-standing debate regarding the preferred method of evaluation (Cronbach, 1982; Cook & Campbell, 1979; Cook & Reichardt, 1979); however, multiple-method (Saxe & Fine, 1979) and context-based (Judson, F.N. & Boyd, W.A., 1982; Altman, D., 1986) approaches are gaining popularity. In addition to the questions regarding evaluative methods, geriatric educators are concerned with the issues surrounding the need for internal and collective impact evaluations. Internal impact evaluation questions regarding the need for standardization, coordination, and strategies (Karuza & Papsidero, 1989) and collective impact evaluation issues of evaluation versus research, audience agendas, and rigor of the inquiry are being addressed (Hilker & Engle, 1989).

Impact evaluations generally are directed toward determining whether a program worked, but Hornik (1980) suggests that it is of greater importance to determine how it worked. Since alternate explanations can be proposed for most data, it is more useful to know whether there are causal mechanisms resulting in change and whether a program can only be successful if replicated in similiar circumstances (Altman, 1986).

PURPOSE OF THE STUDY

This study addresses the impact evaluation issue of how geriatric education programs work. A strategy was implemented to identify causal mechanisms that affected the attendance of a series of geriatric education programs and resulted in changes in perceived knowledge about geriatrics. The theoretical perspective that was utilized is found in the need reduction learning theory (Tyler, 1949). This theory proposes that the motivation to learn is based on the need to reduce the anxiety resulting from the discrepancy between what one perceives one knows and what one perceives should be known. Application of this perspective has been successful in documenting behavioral changes resulting from Continuing Medical Education programs (Fox, Mazmanian, & Putnam, 1989).

METHODS

During the time period between September, 1988 and January, 1989, each of the five OVAR/GEC consortium universities developed a topical geriatric model curriculum complete with lesson plans, content outlines, references, masters for handouts, and audio-visual aids. The general topics for these curricula were ambulatory care, humanities and ethics, interdisciplinary team-building, long term care problem solving, and oral health and medication issues in geriatric education. Each of these model curricula was presented as a one-day workshop at each of the five OVAR/GEC universities for a total of 25 workshops conducted across the OVAR/GEC region between February, 1989 and April, 1990.

Subjects for this study were self-selected from 220 participants attending a minimum of one to a maximum of five model curriculum workshops. A survey instrument was developed consisting of 27 items based on the objectives for each of the five workshops. Additional items were included to collect demographic data, to prioritize important job proficiencies, and to determine forces responsible for the desire to change job proficiencies.

The procedure involved mailing the identical questionnaire at four discrete intervals from 9 to 13 weeks apart (September, 1989; November, 1989; February, 1990; and April, 1990) to all participants who had attended one or more of the twenty-five workshops prior to each mailing of the survey. Mailing dates were chosen that were fairly equidistant, that accommodated the academic calendar, and that included a minimum of four completed workshops during the interim between mailings.

A letter of explanation and self-addressed, stamped envelope accompanied each request for the survey information. Each letter and survey had a clearly identified postmark due date, and participants were given ten working days after receipt of the survey to meet the deadline to return it. Surveys received postmarked after each deadline were discarded. The first mailing was sent to 147 participants with a 43% return rate; the second mailing was sent to 198 participants with a 30% return rate; the third mailing was sent to 214 participants with a 22% return rate; and the fourth mailing was sent to 220 participants with a 20% return rate.

The survey provided information to address the following study hypotheses: 1) Participants attending a specific topical workshop will have a higher discrepancy between desired and actual proficiency than those who do not attend a specific workshop; 2) Participants attending a workshop will have indicated that one or more of the proficiencies associated with that workshop is important; 3) Participants attending all workshops will have higher overall discrepancies on all proficiencies; and, 4) Participant discrepancy will be lower after attendance at an appropriate workshop.

FINDINGS

Individual data for each of the four mailings provided information regarding the identification number, institutional/program affiliation, profession, faculty status information, discrepancy scores between desired level of proficiency in a topical area and present level of proficiency, ranked proficiencies, and forces influencing behavioral change. The data selected for analysis for this paper resulted from mailing one, due to the low return rates from the subsequent mailings.

The evaluation items relating to the objectives from each of the five topical workshops were coded to create scales for desired competency and for current self-assessment of proficiency. Reliability coefficients (alpha) were calculated for each of the created scales. The resulting values ranged from .77 to .93, with an average of .85, which is an indication of strong reliability.

The high reliability coefficients indicate that the items used to create a scale measure the same phenomenon and that the scale scores are sufficiently reliable for correlation analysis. This finding suggests that scales derived from workshop objectives can achieve a high level of reliability, which has important implications for future studies.

Each of the study hypotheses was tested using data from the 64 respondents to the first mailing with no statistically significant results. The first hypothesis proposed that participants attending a specific topical workshop would have a higher discrepancy between desired and actual proficiency than those who did not attend a specific workshop. A t-test was performed which indicated that the discrepancies were higher generally for those who did not attend a conference than for those who did, but none of the differences was significant in the direction predicted by the hypothesis.

The second hypothesis tested whether participants attending a workshop indicated that one or more of the proficiencies associated with that workshop was important. Respondents were classified as to whether or not they attended a given workshop and then were classified separately as to whether or not they had identified one of the proficiencies associated with that workshop as being one of the three most important proficiencies they wished to gain from their involvement in the workshop series. Chi-square analysis was used.

The third hypothesis tested whether participants attending all workshops would have higher overall discrepancies on all proficiencies. Respondents were classified by whether or not they attended conferences on all five session topics. Of the 64 respondents, sixteen (25%) were from participants in all five workshops. The overall discrepancy score was the sum of discrepancies from all items on all returned questionnaires. A t-test analysis indicated that the mean overall discrepancy for those attending all conferences was 30.9, compared to a mean of 24.6 for those who did not attend conferences on all five topics. The difference in the mean discrepancies between the two groups was in the direction predicted, but it was not of sufficient magnitude to be statistically significant.

The fourth hypothesis was that participant discrepancy would be lower after attendance at an appropriate workshop. In order to test this hypothesis, it would be necessary to use the first mailing as a baseline and measure changes as they occurred in subsequent mailings. Since only the first mailing was appropriate for analysis, it was not possible to address this hypothesis.

The lack of support for the theoretical premise of the study was surprising due to the successful application of the need reduction perspective in documenting behavioral changes resulting from Continuing Medical Education programs (Fox, Mazmanian, & Putnam, 1989). The lack of findings indeed may indicate that the discrepancy between desire and proficiency was not a factor in motivating faculty to attend the geriatric education workshops; however, it may have resulted from the temporal order of the treatment/measurement which was reversed due to the study design.

The latter explanation is supported by study findings regarding the motivational forces identified by respondents. Subjects were requested to rank ten items which motivated them to attend a workshop in the series. The rankings indicated that the motivational forces from most important to least important were 1) the desire to be more competent, 2) the clinical or work environment, 3) career stage, 4) curiosity, 5) personal well-being, 6) professional associates, 7) professional associations, 8) family and community expectations, 9) policies and regulations, and 10) financial well-being.

Participants identified the desire to be more competent as the most important motivational factor in attending the workshops. The desire for competency supports the needs discrepancy model, and the data indicated that the discrepancies between desire and proficiency levels were in the predicted direction, yet there was no significance difference. Future utilization of this model may produce statistically significant results if a) the survey is utilized as a pretest prior to any workshop activity, and b) the survey return rates are sufficient to test changes over time.

SUMMARY

An impact evaluation strategy was implemented by the OVAR/GEC during 1989-1990 to determine whether the need reduction learning theory explains the attendance of health care professionals at a series of geriatric education workshops. Discrepancy analysis was applied to data collected from a mailed survey directed toward identifying the difference between the desired level of proficiency and the existing level of proficiency in the areas of ambulatory care, humanities and ethics, interdisciplinary team-building, long-term care problem-solving, and oral health and medication issues in geriatric education.

The findings indicated that 1) the study hypotheses were not statistically significant in the direction predicted by the hypotheses; 2) scales derived from workshop objectives can achieve a high level of reliablity; 3) the three most important motivating factors for attending geriatric education workshops were the desire to be more compentent, the clinical or work environment, and the career stage. The lack of statistically significant findings in this study may have been due to the delayed implementation of the study design, and the lack of a sufficient sample for three of the four mailings. Further analysis of the study data is expected to provide additional insight into the reasons that faculty attend geriatric education programs. Future studies that utilize a survey instrument as a pretest prior to the initiation of workshops and that result in a larger sample may find data that support the research hypotheses.

GERIATRIC RESEARCH: AN IMPACT EVALUATION OF A GERIATRIC PROGRAM

REFERENCES

Altman, D.G. (1986). A framework for evaluating community-based heart disease prevention programs. Social Science and Medicine, 22(4), 479-487.

Cook, T.D. & Campbell, D.T. (1979). Quasi-experimentation: Design & analysis issues for field settings. Chicago: Rand McNally, Chapter 1.

Cook, T.D. & Reichardt, C.S. (Eds.). (1979). Qualitative and quantitative methods in evaluation research. Beverly Hills: Sage Publications.

Cronbach, L.J. (1982). Designing evaluations of educational and social programs. San Francisco: Jossey-Bass, Chapter 1.

Fox, R.D.; Mazmanian, P.E.; & Putnam, R.W. (Eds.) (1989). Changing and learning in the lives of physicians. NY: Praeger, 2-28.

Hilker, M.A. & Engle, M. (1989). Evaluation: How to determine the collective GEC impact. In the Fifth workshop for key staff of Geriatric Education Centers Proceedings, (pp. 69-75). Milwaukee: The Midwest Geriatric Education Center.

Hornik, R.C. (1980). Shedding some light on evaluation myths. Developing Community Reports, (29).

Karuza, J. & Papsidero, J. (1989). Evaluation: How to determine the impact of GEC programs internally. In the Fifth workshop for key staff of Geriatric Education Centers Proceedings, (pp. 43-52). Milwaukee: The Midwest Geriatric Education Center.

Koenig, W.M.; Gleich, C.S.; & Zwick, D.I. (1988). An overall view of geriatric education centers. Gerontology & Geriatrics Education, 8(3/4), 5-15.

Tyler, R. (1949). Basic principles of curriculum and instruction. In R.T. Hyman, Ways of teaching. (2nd ed.). (pp. 39-47). Philadelphia: J.B. Lippincott.

I.

RESEARCH STUDIES IN AGING: PART 2

Objectives:

1. Discuss the health status and use of health care services by rural elderly.
2. Describe the social impact and policy implications of the aging of Kentucky's work force.
3. Identify public policy issues affecting access to long term care services.

Authors:	Topic:
*Elizabeth M. Stokes, EdD, RNC Rosemary H. Brown, MSN, RNC East Tennessee State University	Health Needs in a Selected Group of Rural Elderly
*Gerard Barber, PhD Ron Crouch, MSSW, MBA University of Louisville	Implications of Kentucky's Aging Labor Force for Human Resource Development Policy
*Thomas W. Samuel, PhD Joyce E. Bowlyow, PhD University of Kentucky	Long Term Care Financing and the Rationing of Care

*Denotes Presenter

TITLE: HEALTH NEEDS OF A SELECT GROUP OF RURAL ELDERLY

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Within the growing population of elderly of concern to health care professionals, elderly persons living in rural areas are of special concern. Population shifts have resulted in problems of accessibility and availability of health care services for the rural population. In many rural areas hospitals have closed, and the number of physicians have decreased (Lovingood & Reiman, 1986). To meet the health care needs of the elderly, knowledge of the need for services and perceptions of the elderly about health and health care services is essential.

A study providing data from a multidimensional perspective was designed. The purpose of this research study was to determine health status, use of health services, and perceptions of need for health services by assessing functional status in five areas. Functional status is a more accurate indicator of health for the elderly than medical diagnoses. Outcomes from chronic disease and level of independence make a greater impact on the demand for health services than other parameters (Fillenbaum, 1988; Heath, 1989). Data were collected with the 1988 version of the Older Americans Resources and Services Multidimensional Functional Assessment Questionnaire (OARS) from Duke University (Fillenbaum, 1988).

A group of randomly selected noninstitutionalized elderly persons known to senior citizens services in a rural area participated in the study. Individual interviews were conducted with 49 subjects by specially trained nurse interviewers. The sample consisted of 49 persons, 42 women and 7 men. Ages ranged from 60 to 90 with a mean age of 72. The majority of subjects, 46.9 percent, were in the 70-79 year age range. The majority were widowed. Eighteen were married; three, single; and seven, divorced.

The remainder of this discussion focuses on the data relating to health status and health care services. Most subjects, 69.4 percent, reported that they had not been sick in the past six months. Ten persons had been hospitalized during the past six months. With one exception, hospitalizations had been fourteen days or less. One person had been hospitalized for 31 days. Physician visits ranged from 0 (seven or 14.3 percent) to 20 (one or 2.0 percent). The mean number of physician visits was four.

A range of chronic health problems were reported. The five most frequently reported conditions were high blood pressure, circulatory trouble, heart trouble, and diabetes mellitus. Other conditions reported by more than ten percent of the subjects were emphysema/bronchitis, stomach problems other than ulcers, and urinary problems other than kidney disease. A variety of other problems were reported: anemia, skin disorders, glaucoma, kidney disease, cancer/leukemia, thyroid/glandular problems, speech problems, stroke, Parkinson's disease, ulcers, and liver problems.

Arthritis/rheumatism was the condition that interfered with daily activities the most. Of the thirty-four subjects with this condition, fifteen (44.1 percent) reported that it interfered "a great deal" with daily activities. Heart trouble and circulatory problems were other conditions that tended to interfere "a great deal" with daily activities of subjects.

Another known problem areas for the elderly are sight and hearing. Most subjects rated their eyesight good (32.7 percent) or fair (38.8 percent) as opposed to excellent (12.2 percent) and poor (16.3 percent). Similar ratings were given for hearing. Three subjects (6.1 percent) rated their hearing as excellent while nine (18.4 percent) said their hearing was poor. Twenty subjects (40.8 percent) indicated their hearing was good, and seventeen (34.8 percent) rated their hearing as poor.

In responding to a question about prescription medicines taken during the last month, subjects reported taking a variety of medications. [A ninety year old subject, however, reported, taking no prescription medicines.] Medicine for high blood pressure was taken by 20 subjects (40.8 percent). Other prescription medications taken by twenty percent or more of subjects included medicine for arthritis, tranquilizers, and water/salt pills. Prescription medicines taken by ten percent or more of subjects were drugs for circulation, antibiotics, nitroglycerine, oral medicine for diabetes, and painkillers. Other medications included digitalis, blood thinners, sleeping pills, ulcer medicines, Insulin, hormones, seizure medicine, and cortisone.

Subjects were asked to rate their physical health. Although one person rated his/her health as excellent, the majority of subjects did not think they were in excellent health. Twenty-one subjects (42.9 percent) rated their health as good, and twenty-one rated their health as fair. A poor rating was given by six subjects (12.2 percent). When asked how their health compared with five years ago, five subjects (10.2 percent) said their health was better. Twenty-two subjects indicated their health was about the same, and the same number said their health was worse. Most subjects thought their physical health stood in the way of their activities at least a little. Although fifteen subjects (30.5 percent) said their health did not interfere with what they wanted to do, eighteen subjects said their health status interfered "a little." Health was said to interfere with activities "a great deal" by sixteen subjects.

The OARS Questionnaire includes a short psychiatric evaluation schedule. Problematic symptoms for subjects ranged from 0-13 with a mean of four. Five responses in specified areas indicates possible psychiatric problems. The higher the number, the more likely the subject is to have or develop psychiatric problems. Five or more responses in the specified areas were given by twenty-one subjects (42.8 percent). Nineteen subjects (38.7 percent) had more than five responses in the specified areas. In rating their mental health, nine subjects (18.4 percent) indicated excellent. Twenty subjects (40.8 percent) rated their mental health as good. Fair was the rating given by eighteen subjects (36.7 percent) while two subjects (4.1 percent) indicated their mental health was poor. In comparison to five years ago, seven subjects (14.3 percent) said their mental health was better; twenty-six subjects (53.1 percent), about the same; and sixteen (32.7 percent), worse.

In the area of activities of daily living (ADL), the two most problematic areas for this subject population were transportation, doing housework, and urinary continence. Seventeen subjects (34.7 percent) indicated that they needed help in getting places. Incidentally, no public transportation exists in this locale, not even a taxi service. Twelve subjects (24.5 percent) needed some help in doing housework. Seventeen subjects (34.7 percent) said they had problems staying continent. Of these seventeen, five subjects reported wetting themselves three or more times a week while 11 said they wet themselves about once a week. Other areas in which subjects said they needed some help were shopping, handling money, taking care of appearance, walking, bathing, and eating. Subjects reported that they could use the telephone, prepare meals, take medicines, dress, and get out of bed without help. Eighteen subjects reported that they had help with activities of daily living. Major helpers included spouse, offspring and other kin.

Several service areas were utilized by subjects. Twelve subjects used transportation provided by a public agency; nine indicated they needed more transportation than was available to them. Six subjects obtained help with personal care. Three subjects were still being helped while five subjects indicated that they still needed this help. Six subjects had received nursing care in the past six months. Three were still receiving care and three indicated that they still needed nursing care. Two persons were receiving physical therapy and indicated a continuing need for this service. Twenty-three subjects received checking services; sixteen said they still needed this service. Fourteen subjects were receiving help with housework, and fifteen indicated they still needed help with housework. Nine subjects had received help in getting needed services, and two indicated that they still needed someone to do this. Five subjects had received legal aid, and five subjects said this was still needed. No subject had had an overall review of their situation; four indicated that this was needed. Thirteen persons had taken prescription medicines for "nerves." Eleven indicated this medicine was still needed.

Overall functional ratings (relative to impairment) ranged from five to nineteen with a mean of 12. Thirteen persons (26.5 percent) had ratings less than ten which indicates excellent functioning. Twelve subjects (24.4 percent) had ratings of 14-17 which indicates impairment of lesser severity or impairments in a few areas. One subject had a rating of 19 which indicates a significant impairment in several areas.

In looking at factors that influence functional status, correlations using Spearman's rho were computed. A low correlation was found between age and rating of ADL's (.39, $p=.005$) and a weaker correlation between age and overall functional rating (.28, $p=.04$). Correlations were found between performance on the short psychiatric exam and ratings of mental health, physical health and overall functioning. Moderate relationships were found between responses in specified areas on mental status exam and mental health functional rating and overall functional rating (.65, $p=.000$; .68, $p=.000$, respectively). A moderate relationship was found between psychiatric exam status and physical health functional rating (.43, $p=.002$). A moderate relationship was found between potential future economic status and how subject rated physical health (.48, $p=.001$).

Kendall's Tau was used for correlations for selected functional categories for ratings of the subjects and the interviewers using Kendall's Tau. A weak association was found between subjects' and interviewer's ratings of economic status and ADLs (Tau=.24, $p=.018$, Tau=.28, $p=.01$). The direction of the association between mental health ratings was also similar, but the association was moderate (Tau=.41, $p=.0002$).

The functional capacity of this subject population as a group is generally high. Their mean overall functional score was 11 compared to a mean of 12.2 in another population of similar background (Fillenbaum, 1988). Fourteen percent had cumulative impairment scores that tend to lead to the need for more intense services. Problem areas for this group included transportation, household-homemaker services, personal care needs, and need for supportive aids. Although no subject had received treatment for mental health problems and no subject felt the need for this service, about 25 percent had taken psychotropic drugs in the past six months.

Implications for health care providers and educators include upgrading and intensifying efforts related to preventive health care. Health care providers need to find ways to keep this population healthy. Persons with higher cumulative impairment ratings have the potential for more services. Programs that support continuing ability for self care need to be established. More specific information is needed about mental health needs; however, interventions dealing with stress management and coping resources would seem appropriate. Community based programs with input from the consumers are likely to be most effective, since this group tends to view themselves as able to cope and relatively independent.

References

Fillenbaum, G. G. (1988). Multidimensional Functional Assessment of Older Americans. Hilldale, NJ: Lawrence Erlbaum Associates, Inc.

Heath, J. M. (1989). Comprehensive functional assessment of the elderly. Primary Care, 16(2), 305-347.

Lovingood, P.E. Jr. & Reiman, R. E. (1986). Preface. In Emerging patterns in the Southern Highlands. Vol. 3, Health Care. B.M. Buxton, ed. The Appalachian Consortium, Inc.

Riffle, K.L., Yoho, J. & Sams, J. (1989). Health-promoting behaviors, perceived social support and self-reported health of the Appalachia elderly. Public Health Nursing, 6(4), 204-211.

Title: Implications of Kentucky's Aging Labor Force for
Human Resource Development Policy

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The purpose of this presentation is to identify major issues confronting national, regional and state labor markets as a result of our aging society and to explore selected options available to public and private sectors in order to deal with these issues.

We are experiencing major demographic changes in our state, region and nation. These changes will call on us to develop new rules for a new ball game. Tables I-III show the change in age of our workforce population from 1980 through 2010 for Kentucky, the southern region (which includes FL, GA, AL, MS, TN, SC, NC, KY, WV and VA) and the nation (only Kentucky is shown in the proceedings). They show several basic trends. First is a leveling, or in the case of Kentucky, a decrease in the age 15-34 young workforce population. Second is a significant growth in the age 35-54 mature workforce population, and third is a less dramatic growth in the age 55-64 and age 65-74 older workforce population.

Tables IV-VI illustrate the relative change that will take place over the same time period for the same groups (only Kentucky is shown in the proceedings). They help us analyze changes a little more closely. They show that the southern region's workforce population will experience a 44% growth between 1980-2010, which is about twice that of the nation as a whole and about six times the growth Kentucky will experience. The workforce growth will slow substantially for each of the geographic areas between 1990-2000, as well as between 2000-2010; in fact, Kentucky will experience almost no growth in its workforce population between 1990 and 2010.

These tables also illustrate the progression of the "baby boom" generation through the population pyramid. Between 1980-2000, the substantial growth is in the 35-54 workforce population group, but between the year 2000 and 2010, the largest growth will be in the 55-64 workforce group. During this latter period, the younger workforce group will experience very little growth, and in fact; in Kentucky it will actually decrease. This latter point has particular importance for Kentucky. As Figure 1 illustrates, Kentucky was one of nine states that experienced a two percent or more decline in its population under five years of age between 1980 and 1987.

The implications of these trends is that while Kentucky will not experience as large a growth in its older workforce groups as the south and nation, it will experience a significant decrease in its younger workforce. Unlike the southern region and to a lesser extent the nation, Kentucky will have significantly fewer younger workers entering its workforce. Thus, Kentucky is one of a small group of states that must put greater reliance on its older workers because it will have substantially fewer younger workers entering the labor force to replace older workers.

The declining birthrate is one of the major factors creating conditions that will require new rules for a new ball game. The entry level workforce of the 1970's and the 1980's came from the large population of baby boomers born between the years of 1946 and 1965. This generation of young workers created a large pool for the workforce. Additionally, during this same period, we experienced a dramatic increase in the numbers of women entering the workforce. As shown in Table VII, the participation rate of women in the workforce was 43.3 percent for women age 16 and over in 1970, rose to 56.6 in 1988, and is projected to reach 62.6 by the year 2000. The participation rate of men on the other hand fell from 79.7 in 1970 to 76.2 in 1988, and is projected to decline to 75.9 in the year 2000.

The growing population of young entry level workers and the increasing numbers of working women created a buyer's market for labor in the previous few decades. Businesses were able to be selective in their hiring of new employees, hiring the best and leaving the uneducated and unskilled. The falling birth rates of the 1980's are changing our workforce realities. The 1990's and beyond will be a very different workforce climate. Moreover, because Kentucky will experience very little growth in its workforce population and a significant decrease in its younger workers, it will experience the pressures of this changing labor market before most other states.

Another factor of great concern is the labor force participation of older workers, which is shown in Table VIII. Nationally, there has been a very significant decline in labor force participation by older workers with the exception of women 55-64 (Fullerton, 1989). The participation rate for males 55-64 has declined 21 percent between 1960 and 1988 and 56 percent for males 65 and over. Income support programs, such as Social Security and private pension plans, were purposefully designed to encourage older workers to exit the labor force to make way for the rapidly growing "baby boomers" (Morrison, 1986). But, the projected second wave of baby boomers has not materialized. As we have seen from the demographic trends and birthrate figures, in certain areas such as Kentucky, the younger generation is smaller than the preceding generation.

One area where we need to create new rules for this new ball game is in our retirement policies, particularly Social Security and private pensions. In 1983, congress made several adjustments in the Social Security program to address the aging of our workforce. It: increased the normal retirement age from 65 to 67; increased the early retirement penalty; increased the delayed retirement credit; and decreased the withholding rate under the earnings list (Herz and Rones, 1989). These changes are important because a majority of older persons have a heavy dependence on the Social Security program. In 1986, nine of ten unmarried persons or married couples in which the husband was age 65 or older, received some portion of their income from Social Security, and 60 percent relied on Social Security for more than half of their income.

Most analysts believe that changes in retirement ages, as a result of the Social Security amendments, will be small (Herz and Rones, 1989). In some cases they argue these changes are too little, too late. They also argue that for the 57 percent of men and 31 percent of women who receive or expect to receive pensions, pension policies have a much greater affect on retirement decisions. In fact, some researchers have concluded that "changes in Social Security provisions that would otherwise encourage workers to continue to work can easily be offset by countervailing changes in the provisions of the firm's pension plan" (Herz and Rones, 1989). Aside from the few well-publicized exceptions, private pension plans have not followed Social Security's lead in encouraging later retirement. The important point here is that incentives for early retirement are still in place for most workers at a time when we should be designing incentives for workers to remain in the labor force, particularly in states like Kentucky.

Labor economists argue that educational requirements of future jobs is an important issue for economic growth for the remainder of this century (Kutscher 1989). Table IX shows employment patterns from 1976 through the year 2000. Between 1988 and 2000, labor economists are projecting an increase of 18.1 million jobs, with 16.7 million of these new jobs occurring in the service sector, particularly business services, health services, retail trade and education

(Kutscher, 1989).

The workforce needs of employers for the 1990's will require competent workers who are functionally literate and who possess good work habits. Increasingly, it will require workers who can function with technological innovations that require higher skill levels and can adapt to multidimensional job responsibilities. Production processes, as well as regular business activities, will increasingly depend on computers and sophisticated machinery. National estimates are that 60 percent of all new jobs will require employees to have skill levels at or above two years of college. Employment and economic well being more and more will be irrevocably linked to an educated workforce able to function in an increasingly technological workplace (Kutscher, 1989). The Louisville, Kentucky area has already reported difficulties recruiting qualified skilled workers. A temporary employment agency reported that they accept only 10 in 100 workers who apply compared with 80 of 100 five years ago, because of fewer qualified applicants (Benmour, 1989).

Unfortunately, Kentucky does not fare very well with regard to the education of its population. Table X shows the educational attainment of the United States, states surrounding Kentucky and it's area development districts. The proportion of Kentuckians completing four or more years of college is substantially less than the nation and our surrounding states with the exception of West Virginia, and educational attainment is particularly low in some rural, Kentucky area development districts. Nearly one-third of Kentuckians age 25 or over have only eight years or less of education. Not only are fewer young workers coming into our workforce than other states, but those that do are less skilled and less able to meet the technological demands of our future labor market. This is another very important trend that will put greater pressure to retain and retrain Kentucky's older workers.

Our young workforce is smaller in number, contains an increasingly at risk population, and has a significant number of under skilled workers. Our business community will find that employment practices of yesterday and today will not work tomorrow. They will be forced to adopt new rules for a new ball game, and their ability to adapt to the strengths and weaknesses of an aging workforce will become an increasingly critical issue for the economic well being of our state.

Where might some of these rule changes take place? One of the most obvious is in our pension plans. Employers, employee associations and unions should take a hard look at their pension policies and explore policy options that will encourage older workers to work longer and delay their retirement. Other benefit areas should be explored also. Policies directed at retaining workers could include greater employer-sponsored training opportunities, greater increases in wages with length of service, service-related cash bonuses and sabbaticals for longer service workers. Health benefits, long-term care and eldercare are other benefit issues that affect older workers as well as other workers, particularly women who are frequently affected by eldercare responsibilities. As our population ages and the number of women in the workforce increases, employers will need to develop new benefit options that will help their employees deal with the needs of an aging society and remain in the work force longer.

Hopefully, the anticipated tighter labor market and skill shortages resulting from both the diminished pool of young, entry-level workers and the continuing trend toward early retirement, will force employers to rethink their current employment practices to create new ways of utilizing older workers. Most important among these employment practices is flexible work options, including part-time employment or reduced workloads, job sharing, flex-time, sabbaticals and volunteer time (Morrison, 1986). Older workers have shown an interest in reducing their work hours, whether part-time or part-year, as an alternative to full employment. "Consideration should be given to allowing older workers opportunities to scale down their level of involvement through job sharing, part-time jobs and other kinds of reduced work schedules that allow them to experience a gradual rather than an abrupt transition from full-time work to retirement by progressively substituting leisure time for work time." (Report of the Secretary of Labor, 1989, p. 16).

Redesigning training programs is another important needed change. As stated earlier, future jobs will require knowledge of new technologies (computers, communications, etc.), which will require a higher degree of reading, writing and analyzing. Many older workers are knowledgeable of these trends and are interested in adapting to them. Employers, however, need to develop new approaches to training older workers because our traditional approaches have not been effective with this group. We need new training paradigms that recognize the realities and limitations of older workers (Feldman, 1989), such as those covered in the book America's Workforce Coming of Age.

So what does this mean for gerontological education? We need to be thinking of new targets for our gerontological education efforts. Traditionally, we have focused our efforts on training th[illegible] in the helping professions, particularly the health professions. Helping society adapt to an aging population requires that we reach out to less frequented targets, such as employers, personnel managers, staff development officers, union leaders and others who effect business policies and practices. It also requires that we reach beyond our educational institutions, for these trends are happening right now. We must engage those who are currently running our business and public institutions, not just those who are preparing for their careers.

REFERENCES

Benmour, Eric. Area Faced with Shrinking Work Force, Study Finds. Business First, October 9, 1989, p. 8.

Feldman, Nina. Technological Change and the Agency Work Force: A View Towards the Future. Annual Scientific Meeting of the Gerontological Society of America, Minneapolis, Minnesota, November 18, 1989.

Fyock, Catherine. America's Work Force is Coming of Age. Boston: Lexington Books, 1990.

Fullerton, Howard. New Labor Force Projection, Spanning 1988 to 2000. Monthly Labor Review, Vol. 112, No. 11, November 1989, pp. 14-21.

Herz, Diane and Rones, Philip. Institutional Barriers to Employment of Older Workers. Monthly Labor Review, Vol. 112, No. 11, November 1989, pp. 14-21.

Kutscher, Ronald. Projections Summary and Emerging Issues. Monthly Labor Review, Vol. 112, No. 11, November 1989, pp. 66-74.

Morrison, Malcolm. Work and Retirement in an Older Society. In A. Pifer and L. Bronte eds, Our Aging Society: Paradox and Promise, New York: W.W. Norton and Co.,1986, pp. 341-365.

U.S. Secretary of Labor. Older Worker Task Force: Key Policy Issues for the Future. Washington, DC: U.S. Government Printing Office, 1989.

Long-Term Care Financing and the Rationing of Care

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"Rationing" is a buzz word for the analysis of the health care system in the 1990's. The purpose of this paper is to dispel some of the misconceptions about rationing by putting systems of rationing in a context of the long standing practice in the United States of government intervention in the market place to allocate health care resources.

Economic System

The objective of the economic system of the Western democracies is to efficiently allocate human and material resources among the sectors of the economy to foster economic development and class harmony.[1] The United States has relied more on the competitive market system to allocate resources than the other democracies. For example, the United States and South Africa are the only industrialized nations without a health care system which is government financed and which provides universal access. Even in the absence of such a system, each level of government in the United States has actively allocated resources to health care to achieve specific objectives such as equality and social justice. Explicit rationing, as now being proposed in Oregon, is a new phenomenon in the United States. It is, however, an extension of governmental intervention in the market place and it is a mechanism presently employed by policymakers of other Western democracies.

Table I illustrates the range of governmental intervention in the United States market place to achieve objectives not achievable through its normal operation. Government intervenes to limit or expand the allocation of resources: (1) to a sector (e.g. health care, defense, transportation, housing); (2) to an industry within a sector (e.g. ambulatory care, long term care, acute hospitals); and (3) to consumers (e.g. the aged, the poor, those with military service). In addition, the intervention to limit or expand the allocation of resources may be achieved by the supply of resources or the demand for resources.

Rationing

A precondition for rationing is an excess demand for goods or services relative to the supply. The government may respond one of three ways: (1) expand the resources to be distributed; (2) implement a method to distribute the limited resources; or (3) allow the market to achieve its normal distribution. The current discussion of explicit rationing, which is a method to distribute a limited resource, results from a realization that the United States has exceeded or will soon exceed the limit on the amount of resources which can be allocated to health care and still maintain an acceptable level of "economic development and class harmony."[2] Evidence of this "exceeded or soon to exceed" state is:

1. The AFL-CIO and the National Association of Manufactures have asked for measures to control rising costs, to improve quality of care and to provide care to Americans who currently lack health insurance.[3]
2. Health costs add $700 to the price of each car for Chrysler while the foreign competitors spend $200 to $300. A Chrysler health and benefit specialist has said, "The cost of health care is eroding standards of living and sapping industrial strength".[4]
3. In the last 10 years, the United States has gone from a creditor nation to the world's largest debtor nation. The Federal Government has a debt in excess of $3 trillion and unfunded liability in excess of $10 trillion for Medicare, Social Security and Federal pensions.[5]

Table I
Government Intervention in the Market Place
to Allocate Resources to Health Care

	Allocate to Sectors	Allocate to Industry	Allocate to Consumer
Supply Side			
Limit	CON	CON	DRG
Expand	Training grants State funded education	State/local operation of facilities	
Demand Side			
Limit	Employment based health insurance		Income tax deductions
Expand	Medicare Medicaid Health benefits-nontaxable	Medicare Medicaid	Medicare Medicaid Employment based health insurance

Opportunity Cost

As indicated above, there are currently demands for the allocation of additional resources to sectors other than health care and within the health care sector, and the demands are likely to intensify in the future. Table II demonstrates the opportunity cost of the current United States health care system. Opportunity cost is utilizing resources for the health care system, so that alternative uses must be foregone. Some of these alternatives might be to invest in housing, to reduce borrowing from other countries, to reduce taxes, to reduce the Federal debt, or to improve the delivery of long-term care.

Table II is based on the assumption that the United States health care system spends $600 billion annually as it did in 1989[6] and that this health care expenditure represents 11.1% of gross national product (GNP) as it did in 1987.[7] The percent of GNP allocated to health care in 1987 was in Canada 8.5%, in Japan 6.7%, and in the United Kingdom 6.2%.[8]

Table II
Opportunity Cost of U.S. Health Care System
(Alternative Allocation of Resources to Health Care
in the United States, Current System and if a System
from Canada, Japan, or United Kingdom could be Implemented
with Acceptable Results in the United States)

Health Care Systems Health Care	% of GNP Allocated to Health Care	Comparative Health Care Expenditures in U.S.*	U.S. Opportunity Cost Resources Available to Allocate to Other Sectors
United States	11.1%	$600 billion	none
Canada	8.5%	$460 billion	$140 billion
Japan	6.7%	$360 billion	$240 billion
United Kingdom	6.2%	$335 billion	$265 billion

*This column is calculated as follows: Canada 8.5 % divided by United States 11.1% = 76.6%. Then 76.6% times $600 billion = approximately $460 billion, etc.

Oregon

The Oregon rationing proposal excludes the elderly covered by Medicaid and directs the rationing at poor women and children.[9] In addition to rationing by class within Medicaid, the Oregon proposal ranks all services. Services determined to be ineffective or not sufficiently effective to warrant funding are excluded from the defined "basic" health care coverage. Including only services within the defined "basic" health coverage permits the Medicaid program to be expanded to 100% of the Federal poverty level. When combined with the statutory requirement that employers provide family coverage, Oregon would have "basic" health care coverage for every resident.[10]

The Oregon method of rationing is a demand side, limit of allocation of resources, to a certain class of consumers for certain services. In contrast, British rationing relies more on a supply side, limit of allocation of resources. For example limiting technology (CT scanner) to the health care sector can be a method to restrict access, regardless of social or economic status.[11] In Oregon, the non-"basic" health care services will still be available. The individuals belonging to the class excluded from services could receive them in Oregon by obtaining employment with health care benefits exceeding "basic" coverage or by obtaining resources otherwise. The individual could also exercise his U.S. citizenship and move to another state where he would be in a class covered for such services.

Unresolved Issues - Rationing

1. In 1987, $262 billion or 59.2% of personal health care expenditures were from direct payments or private health insurance.[12] Comprehensive rationing will require government control over 100% of personal health care expenditures. Would rationing first require national health insurance?

2. In 1990, the Federal Government will forego $40 billion in income and payroll taxes by exempting premiums for health care benefits paid by employers for employees and their dependents.[13] Should payments for health care be before tax, if employed, but after tax, if not employed? How does this "employed bias" affect the elderly?

3. In 1987, direct payments for hospital care amounted to 9.5% of such expenditures, as opposed to 49.4% for nursing home care expenditures.[14] In 1987, government expenditures for nursing home care were $19.9 billion or 49% of such expenditures.[15] Can a long-term care insurance product be designed which is actuarially sound, with an acceptable level of benefits, at an affordable price without direct, significantly increased, government expenditures for this purpose?

4. Individuals 65 and over represent 12% of the population, but consume 33% of the resources allocated to personal health care.[16] Can rationing health care based on age be avoided? Should it be avoided?

Footnotes

[1] Richard Romano & Melvin Leiman, Views of Capitalism, Beverly Hills, Benziger Bruce & Glencoe, 1975, p.6.

[2] Nancy S. Jecker and Robert G. Pearlman, "Ethical Constraints on Rationing Medical Care by Age," Journal of the American Geriatrics Society, 37:11, Nov. 1989, p. 1068.

[3] Kenneth H. Bacon, "Business and Labor Reach a Consensus on Needs to Reduce Health Care Costs," The Wall Street Journal, Nov. 1, 1989, p. A16.

[4] Ibid.

[5] John Kitzhaber, "Uncompensated Care, The Threat and the Challenge," Western Journal of Medicine, June, 1988, 148:5, p. 347.

6 Merit C.Kimball, "Nation's Health Bill to Rise 10.4% in 1990, U.S.says," Healthweek, January, 8, 1990, p. 1.

[7] Henry Aaron & William B. Schwartz, "Rationing Health Care: The Choice Before Us," Science, Vol. 247, Jan.26, 1990, p. 419.

[8] Ibid.

[9] Al Gore, "Good Aims, Poor Results," HealthWeek, May 21, 1990, p. 19.

[10] John Kitzhaber, "Oregon plan can heal an ailing system," HealthWeek, May 21, 1990, p. 18.

[11] Henry Aaron & William B. Schwartz, op. cit. p. 420.

[12] Source Book of Health Insurance Data, Health Insurance Association of America, 1989, p. 53.

[13] Options for the Public Financing of Long-Term Care, Washington, American Association of Retired Persons, Dec. 1989, p. 24.

[14] Source Book of Health Insurance Data, op.cit., p. 51.

[15] Ibid.

[16] Nancy S. Jecker and Robert G. Pearlman, op. cit. 1069.

I.

RESEARCH STUDIES IN AGING: PART 3

Objectives:

1. Identify the potential role of interactive television in the delivery of wellness education to the rural elderly.
2. Recognize deficiencies in popular thinking about volunteerism and the elderly.
3. Discuss the incidence and possible causes of self-reported memory problems in a population of black elderly.

Authors:	Topic:
*Ramona Wroblewski, RN, BSN Northcentral Technical College	Older Adults Pioneer Wellness with Interactive Television
*Howard B. Turner, MSW Transylvania University	Bringing Aging Theory into Research Instruction: A Test Using Older Volunteers
*Mohsen Bazargan, PhD Ann R. Barbre, PhD Xavier University of Louisiana	Memory Problems Among Black Elderly

*Denotes Presenter

OLDER ADULTS PIONEER WELLNESS
WITH
INTERACTIVE TELEVISION

presented by

Ramona Wroblewski, BSN
Coordinator
Project H.E.A.L.T.H.

at

5th Annual Summer Geriatric Institute
July 23-25, 1990

Ohio Valley Appalachia Regional
Geriatric Education Center

The North Woods Health Careers Consortium
Northcentral Technical College
1000 Campus Drive
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NORTH WOODS HEALTH CAREERS CONSORTIUM

PROJECT H.E.A.L.T.H.

HELPING ELDERS ADJUST LIFESTYLES TOWARD HEALTH

Northcentral Technical College (NTC) is one of sixteen vocational, technical and adult education (VTAE) districts throughout the state of Wisconsin. The college is located in rural north central Wisconsin with the main campus in Wausau, the central shopping center for the region. Due to the rural nature of the area, delivery of educational services is often difficult.

In 1981 the North Woods Health Careers Consortium was formed between Northcentral Technical College and Nicolet Area Technical College district which is a neighboring sparsely-populated rural area. The purpose of the consortium was to facilitate cooperation among educational institutions and health provider agencies to address the health education problems of citizens and professionals in the service area of the colleges. A consortium board was appointed which was composed of representatives from the colleges and three health-related organizations.

Surveys conducted in 1982 and 1985 indicated that special needs for the elderly existed within the districts. A review of the literature supported the fact that older adults benefit by practicing healthy lifestyle behaviors. Due to distance factors it was decided that a special delivery system would be required such as interactive television (ITV).

A project was submitted to the W. K. Kellogg Foundation in 1986. The project included wellness education for older adults and training for local site facilitators to be delivered via interactive television (ITV). Five ITV sites were proposed to be developed through combined funding from a Title III grant and the Kellogg Foundation. The project was approved and began in the Fall of 1986 to extend over a five year period. The implementation consisted of three phases. The curriculum was developed and piloted in phase one. Phase two involved the ITV component which encompassed the identification and training of facilitators, adaptation of the ITV delivery system for the program, site selection, program promotion and piloting the program over the ITV system. Evaluation took place in phase three.

This wellness project for older adults has three major objectives:

1. To improve the lifestyle behaviors of older adults through health education/wellness promotion and acceptance of responsibility for good health habits;

2. To train local site facilitators in understanding the older adult, learning styles, wellness education, and promotion of healthy lifestyle behaviors; and

3. To implement an alternative delivery system capable of bringing the instruction to the underserved rural areas of the consortium district.

The program developed is titled Project H.E.A.L.T.H., an acronym for Helping Elders Adjust Lifestyles Toward Health. Project H.E.A.L.T.H. is a health promotion/wellness program for older adults (55 years and over). The title reflects the philosophy that health is the responsibility of the individual. It is designed to "help" older adults make healthy lifestyle choices.

The core curriculum includes physical activity, nutrition, stress management, and empowerment which involves having and exercising the necessary social, political and interpersonal skills to create change. The major activities in the project include development of the Project H.E.A.L.T.H. curriculum; conducting the Project H.E.A.L.T.H. curriculum pilot; development of the curriculum and training local site facilitators; conducting the Project H.E.A.L.T.H. ITV pilot program; and evaluation.

The basic content and length of curriculum was based on a thorough review of the literature, study of health promotion programs, and extensive involvement of advisory committees and focus groups of older adults. The core curriculum components of physical activity, stress management, eating for health, and empowerment are integrated into the major theme of taking personal responsibility for health.

Since the purpose of Project H.E.A.L.T.H. is to improve lifestyle behaviors through increased knowledge about healthy living, the quality and quantity of instruction required to accomplish this goal needed to be determined. Nola Pender's *Health Promotion Model* serves as a theoretical model for this project. It summarizes the multitude of factors which influence the likelihood of engaging in health promoting behaviors indicating that behavior change is a complex process. While there are no formulas in the literature describing the exact content and length of a curriculum to produce behavior change, it is clear that such a curriculum must address both cognitive and behavioral components, with sufficient time for participants to rehearse any newly learned behaviors.

This format implies a lengthy curriculum which can affect participant retention. Survey data from the advisory committees and focus groups indicated that many older adults are reluctant to enroll in a program with a long-term commitment. After balancing the content factor with the retention factor, the 10-week (20-hour) curriculum was developed as follows:

Week	Theme
1	Introduction to Project H.E.A.L.T.H.
2	Physical Activity--Basic
3	Managing Stress
4	Living Longer, Loving Life
5	Eating for HEALTH

Week	Theme
6	Enhancing Mental Fitness
7	Relating to Our World--Communication & Consumerism
8	Physical Activity--Advanced
9	Designing Our Personal Environment--Being In Control
10	Summary and Development of LifeStyle Change Plan

In addition to the major theme, each session integrates all core components which incorporates the holistic approach. This encourages attendance if the theme for the week is not of particular interest to the participant.

The format for each session includes the following components:

- An *Opening* Activity--This serves as an ice breaker, both stimulating discussion and introducing a topic.

- A *Sharing* Activity--Since attempts for lifestyle change are enhanced by a supportive environment, participants are encouraged to cultivate friendships and support during the sessions. The social time also serves to create an environment of comfort, enhancing the participatory learning approach.

- *Common Health Concern(s)*--This demonstrates the health potential of healthy lifestyles through discussion of common health concerns which may be modified or even prevented by behavior change (e.g., diabetes is discussed during the physical activity session in relationship to the effect of exercise on that health condition).

- The *Healthy Snack*--Serving a health snack at each session demonstrates nutritional principles by modeling behavior and provides practice in healthy eating styles.

- The *Home* Activity--Since lifestyle behaviors are learned, acquiring new behaviors requires practice provided by a home activity suggested at each session.

A Project H.E.A.L.T.H. handbook was developed to reinforce and supplement the content of the weekly sessions. With a "less is more" curriculum motto in mind, final selection of content was selective. The goal was to develop a comprehensive, yet not overwhelming, volume. Participants are encouraged to view the handbook as a source of future references as well as a session guide. Illustrations developed are non-ageist, attractive, and convey the message that "though staying healthy is serious business, it should also be fun." The message is that mastery of lifestyle is an ongoing process and that learning should continue after the sessions are completed.

The design for Project H.E.A.L.T.H. lies in the principles of participatory learning used successfully in the Wallingford Wellness Project (University of Washington) and principles of team presentation used by Healthwise, Inc. (Boise, Idaho) in the well-received programs *Growing Younger* and *Growing Wiser*.

The team in Project H.E.A.L.T.H. includes a moderator, facilitator and guest presenter. The moderator coordinates the sessions and the facilitator aids the participant in routine activities. Together they fill the roles of enabler, supporter and encourager serving as a resource for information lending continuity and building rapport among the group. The guest presenter provides expertise and variety to the specific content areas. Each team member is required to participate in a training session which includes a review of the principles of adult learning, the developmental changes of the older adult, the concept of wellness and the principles of participatory learning and the ITV system.

The curriculum was piloted to a study group of 52 participants at the Riverside Senior Center in Wausau, Wisconsin. A comparison group of 40 was identified in Antigo, Wisconsin thirty-five miles away. With a positive response to the curriculum, the ITV component using the same design was initiated employing the closed circuit television system on Northcentral Technical College Campus adding to the existing components and constructing a tower for signal relay to the Nicolet Area Technical College.

Site selection was executed by gathering information in respect to ability to receive the signal at a particular site, an older adult group interested in health promotion and a facility to safely accommodate a group of twenty persons.

Participants were self selected adults 55 and older. A total of 234 were enrolled in the curriculum and ITV pilots. This included a comparison group for each pilot, 41 in the curriculum pilot and 30 in the ITV pilot. The evaluation tools were self report pre-, post-, six-month and one-year assessment measures for health behaviors and lifestyle change attempts. Evaluation of the two groups included demographic items and several tools to assess the validity of the curriculum, as well as indicators to evaluate lifestyle, health perception, social behaviors, self responsibility, exercise, nutrition, stress management and self actualization. The participants were asked to respond to the curriculum content in detail. Guest presenters and facilitators also participated in the evaluation process.

A follow up program at the three-month, six-month and one-year data collection session was held to provide an opportunity for interpersonal support, idea exchange and further data collection. The program evaluations document a high degree of satisfaction with the curriculum and the ITV delivery. Evaluation instruments from the curriculum pilot administered to measure change over time reveal significant change in the areas of exercise, perceptions of loss, communication with their doctor and the increased use of fire extinguishers at one-year post program.

To date Project H.E.A.L.T.H. has successfully met the three major objectives of the program. The interactive television format was well received by the participants. Most were eager to contribute to the discussions with the use of the push-to-talk microphones. The participant evaluation surveys revealed overall acceptance of the curriculum and the ITV method of delivery. Project H.E.A.L.T.H. has made a positive impact on the knowledge base of older adults enabling them to take responsibility to lead healthier lives. The interactive television system is an effective delivery method for health education and wellness promotion and compares to in person delivery.

Bringing Aging Theory Into Research Instruction: A Study Using Older Volunteers

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With varying intensity the past few decades have shown increased attention being paid the aged and aging processes. Two stimuli have been instrumental. One is the change in demographics. During this century the number and percentage of elderly have increased at breakneck speed, growing from 3 million and 4% in 1900 to a projected 35 million and 13% in 2000. And that growth is going to intensify as the baby boomers wind through their middle years and begin pouring into the ranks of the old. By 2020 older cohorts (65+) will have ballooned to 51 million, or over 17% of our total population (Soldo and Agree 1988).

The second major impetus for this growing interest has been the elderly's newly "achieved" minority status. Whether or not an accurate sociological characterization of the elderly, there has been a heightened awareness of the negative experiences which befall those occupying lesser social positions, however defined--color, sex, socioeconomic status, age. This knowledge has proved a catalyst in turning researchers' attention to social structure and focusing their eyes on the aging experience as it is lived out by individuals and groups.

While the questions have varied, at least two prominent themes have developed, providing direction for scholars' inquiries. One has been the notion that the latter part of life is comprised of decrements which, if better understood, might be ameliorated or eliminated. To this end much research has focused on the quality of life for our senior citizens be it financial, health related, community services or life satisfaction. Second has been the feeling that society was losing a portion of its human resources by not using the skills and knowledge our elders have acquired. Several authors, in fact, refer to older cohorts as an "untapped resource," or some similar metaphor (e.g. The National Committee on Careers for Older Persons 1979) and encourage continued use of their competencies.

These two themes, then, have served as underpinning for an exploration of volunteer activities by the aged in an aging society. More specifically, the desire to lessen decrements thought to be associated with aging and the effort to improve the efficiency of "resource management" by society have, acting in consort, served to focus attention on older persons performing volunteer roles. Using the elderly in volunteer positions has been hailed as a way of replacing social involvements while concurrently benefitting society. Characterized as something akin to a social reincarnation, individuals feel useful again while we all gain through this "recycling". (And fanning these notions has been the knowledge that older people who volunteer want significant involvement (Sequin and O'Brien 1976)). However, support for this vehicle (volunteerism by the elderly) as a "can't miss" mechanism for reaching the desired goals (minimizing individual and societal loss) is questionable. This paper looks at the efficacy of volunteerism and older volunteers via the results of an older volunteer project supported by the Administration on Aging and carried out through the University of Kentucky during 1985.

PROJECT DESCRIPTION. The Gerontology Extension Project (GEP) was organized around a training the trainer model. Older volunteers were recruited, trained in an area of gerontological knowledge(1) by university faculty, then utilized as resource persons to service providers working with an elderly clientele. The GEP had three major goals. Briefly stated they were to: 1) disseminate information regarding the elderly to appropriate field personnel; 2) improve the morale and self-concept of older volunteers; 3) strengthen links among university, community and aging staff.

Expectations for GEP participants were considerable. The project required a substantial amount of time, by clock and calendar. Training consisted of 28 classroom hours(2) over six Saturdays. Additional hours and energy were required for homework. Individuals also had to make any arrangements necessary to attend training sessions (e.g. travel and overnight stays). Once the two-month training phase was completed volunteers were expected to be available for six months to make community presentations(3). Even more significant, however, were emotional investment and risk taking. Simply put, the GEP demanded participants work hard and be willing to put their efforts "on the line" by going into a sometimes fickle community. While the workshops were coordinated through GEP staff, once organized the volunteer was seen as the "expert", responsible for delivering a successful training session.

The GEP had 36 stipend ($500) slots. To fill these positions a statewide advertising campaign was undertaken. The response was excellent, allowing GEP staff to select individuals they thought would perform most successfully in the field. The primary criteria in making the selections were motivation, enthusiasm, health, existing knowledge, and facility for making presentations. Ultimately 41 persons were chosen, 39 (21 female and 18 male) of whom stayed the course.(4) Ages ranged from 52-77, with a mean of 67 years. Not surprisingly, socioeconomic status and health characteristics were well above their age cohort's norms.

DATA. The data were gathered at three points. The initial collection was just prior to the first training session. A second wave was collected after the training period. The last collection was done after all of the workshops had been presented. Several types of information were gathered. One was the degree of gerontology knowledge each volunteer possessed: general, as measured by a revised version of "The Facts On Aging Quiz" (Palmore 1977); specific to the area of training, measured through exams composed by the relevant GEP faculty. A second type of information might be classified as attitudinal/subjective: self-esteem and alienation measures; information relative to morale; self-perceptions of health. A third type could be classified as program specific: reasons for participating; views of training received; reflections on roles; overall perceptions. Lastly, descriptive information on volunteer characteristics was collected.

THEORY. The rationale for the GEP (and many similar projects) lies in activity and exchange theories. Activity theory is part of a gerontological predisposition to see a positive relationship between activity and life satisfaction. Higher levels of activity produce higher levels of life satisfaction while lower levels of activity produce lower life satisfaction levels. Similarly, loss of activity, e.g. loss of social roles, results in a diminished life satisfaction. As stated in the first systematic presentation of the theory (Lemon, et al 1972), activity is seen as providing role supports for the individual, thus reaffirming one's self-concept. Since a positive self-concept is necessary for high satisfaction one's activity--in this case volunteering--becomes key in life satisfaction yield.

The exchange perspective is rooted in hedonistic doctrine, utilitarian economics and psychological reinforcement. Behavior can be understood as an effort to avoid pain while seeking pleasure and minimizing costs while attempting to maximize rewards. Social relationships, conceptualized as a series of exchanges, are entered into only so long as the actors perceive that the rewards and pleasures outweigh the costs and pain. The key aspect underlying the "exchange" is distribution of power. If all parties have equal power the exchange is likely to be relatively equal. Unequal power, however, produces unequal exchange (Blau 1964). Applied to aging, the major concern becomes the institutionalization of an unequal exchange rate. If individuals lose their power resources--income, social roles, up-to-date information--they are forced to use more general and less powerful "reserves" such as esteem, approval and compliance (Martin 1971; Dowd 1975). Ultimately the elderly are seen as being largely dependent on their exchange partner for any rewards or pleasures (Dowd 1980).

ARCHETYPES. Using these theories one can develop an archetype for each and compare expectations with outcomes. From the activity perspective one would anticipate little trouble in recruitment or retention of volunteers since it is presumed that the addition of social roles in themselves will raise an individual's level of life satisfaction. One would also expect the degree of involvement in the GEP to be differentially related to volunteer affect, with both time spent on the GEP and the number of presentations made to the community being directly related. And since not all activity is viewed as equal, specific activities--e.g. being a student or being a resource person--might also be predicted to show differential affect, depending on the participant's perception of it's relative importance.

An exchange view would predict changes to the degree volunteers were able to accumulate transferable "currencies". The greater the accumulation the more positive the affect. Currencies might include the stipend itself, or the fact that someone was willing to "pay" the volunteer to participate. Other possible currency sources could include being associated with the university and its faculty, making new acquaintances, or being involved in particular activities, e.g. teaching or improving the lives of others. An exchange vision would also be responsive to one's perception of his/her effectiveness and the overall degree of satisfaction felt with the project.

FINDINGS. The findings from the GEP may be most informative for what they fail to show. Though some support for both activity and exchange perspectives is evident, it is limited in scope and surfaces in somewhat uncharacteristic ways. It is also important at this point to mention the impact threshold effects may have had on these findings. As described, the volunteers showed initial high marks on all SES and health related measures. Naturally, being near the ceiling at the outset means finite room for improvement and limits any opportunity to show dramatic improvement.

ACTIVITY. As stated, one would expect little difficulty in recruiting and retaining older volunteers. The reason lies in the benefit accrued by the volunteer by taking on an additional activity, especially one of perceived significance. This, in fact, is supported by the GEP. Responses to the call for interested persons were gratifying, eliciting nearly three applicants for each position. And the nearly perfect (95%) program completion rate was impressive.

Less supportive of the activity perspective are the data showing the number of GEP workshops presented to be unrelated to the social-psychological indicators measured throughout the project. One would expect a strong tie between the level of involvement the number of presentations represents and the general life satisfaction as measured by the varying affect scales. Correlation analysis, however, revealed no significant relationships with self-esteem, morale, absence of lonely discontent or alienation. The strongest correlation, with alienation (.256), is in the wrong direction. Likewise, one would expect the number of workshops presented to show a positive relationship with the volunteer's level of overall satisfaction with the GEP. But this, too, failed to materialize.

Neither was there the anticipated relationship between overall GEP satisfaction and other areas of life. Given the theoretical assumption that the perceived significance of an activity is crucial in determining the degree of increased satisfaction attained from it, one should find a positive correlation between the satisfaction with a specific volunteer activity and broader areas of one's life. These data are not supportive of that prediction in the most general sense. However, support for the activity model is inferred from certain of the reasons given for volunteering for the GEP. The most highly correlated reasons for volunteering--to help others and an interest in problems of the aged--can be reasonably equated with roles mentioned earlier, namely resource person and student. Both showed significant correlations with the attitudinal/subjective measures. Helping others was significantly related to self-esteem (.271)(5), absence of lonely discontent (.494) and alienation (-.314). Interest was significantly correlated with self-esteem (.275) and alienation (-.341).

EXCHANGE. The ability to accumulate some sort of "currency" is of interest from the exchange perspective. By participating in and finishing the program one would assume accumulation of some form of resources to have taken place. Otherwise dropouts would have been common. Presumably this increase in currency would manifest itself in the social-psychological indicators. But as we have just seen above, the results are mixed. In an overall sense there would appear to have been no impact on the volunteers in that there are no significant correlations between satisfaction with the GEP and any of the social-psychological variables. Nor did the level of satisfaction with GEP show any relationship to other volunteer activities as the exchange notion might suggest. On the other hand, the reasons given for volunteering appear to have played a role in affect changes. In addition to those mentioned above--helping others and interest in problems of the aged--a sense of duty (.364) and getting out of the house (.292) showed statistically significant positive relationships to self-esteem. Not only is this supportive of the exchange perspective, but it also suggests the sources of currency might have been more specifically discerned. Stipend is also significantly related to self-esteem (-.281) but in a negative direction. Given the relatively altruistic nature of the GEP, this might be seen by the exchange view as the "price paid" by those for whom money was a major spur in volunteering, i.e. an increased level of guilt for being motivated by a "lesser" reason.

Also consistent with the exchange view is the finding that one's effectiveness is associated with program satisfaction and with a reduction in alienation. Perceived ability to help was correlated with absence of lonely discontent at the .396 level and with alienation at the -.302 level. Perceived success of presentations was related with alienation at the -.466 level. Clearly, persons who felt they had been successful and helpful felt more positively toward the GEP. Those who viewed their own performance or impact less positively seemed to carry those sentiments with them in assessing GEP and in their more general feelings of "belonging".

PERFORMANCE. Another efficacy issue is that of volunteer performance. Here the data are also mixed. During the project the overall group showed improvement in their general knowledge of aging as well as in knowledge in their speciality areas. At the end of the program, average scores for all areas remained higher than those obtained at the beginning. The disturbing part of these data, however, is that the level of performance may have been lower than expected or hoped. If one had been using a traditional 10-point grading scale common in university courses, the highest grade achieved by any group would have been a "C".

Anecdotal information is also varied. The tenor of the comments received from the training sites--organizers and participants--was positive. In fact, many organizations scheduled a second training session based on their experience with the first. However, unannounced, on-site training visits by GEP staff yielded different "results". These could be classified as disappointment in the kind of information being presented, doubts about ability to separate personal feelings from more scientific data, and concerns about the overall effectiveness of the presentations. While the effort seemed to always be present, the delivered package was questionable.

CONCLUSIONS. Though there is support for both theoretical perspectives, it is limited and inconsistent. The idea of adopting either as the primary vehicle to explain and predict older volunteerism seems premature. Particularly troubling was activity theory's inability to predict social-psychological factors via volunteer activity level (number of workshops presented), a core idea, and its lack of predictive power between activity level and overall activity satisfaction.

The explanatory power of exchange theory seems somewhat stronger. Participation can be understood via the currency notion, though determining the currency source may be problematic. Associations of perceived effectiveness and satisfaction and perceived effectiveness and alienation seem consistent with the hedonistic/utilitarian/reinforcement basis of the theory. However, there was not carryover into areas where there should have been. Namely, satisfaction with the GEP should have shown a relationship with other areas of the volunteer's life.

There is some evidence in the data suggesting individuals joining GEP to get out of the house or become involved in a new activity reduced their involvements outside of the program. This may suggest yet another theory to be appropriate for use in aging and volunteerism. Chambre (1987) stresses the importance of maintaining consistent patterns of behavior into the later years, suggesting Continuity Theory as the tool most useful in explaining the volunteering activity of older persons. Rather than involvement, per se, the opportunity for continuing familiar patterns, at whatever levels, is central.

NOTES

1. The areas of possible training were: coping skills & adaptation; home health & nursing; nutrition & food preparation; drugs & medical practices; consumer economics.

2. The 28 hours was divided into two parts. The bulk, 24 hours, was specific to the content area assigned. The remaining 4 hours were plenary, focusing on presentations.

3. The volunteers made 147 presentations to 59 agencies.

4. One male and one female dropped out along the way.

5. All significant statistics are at the .05 or lower levels.

REFERENCES

Blau, Peter M. Exchange and Power in Social Life (New York: Wiley, 1964).

Chambre, Susan M. Good Deeds in Old Age (Lexington, Mass: Lexington Books, D.C. Heath and Co., 1987).

Dowd, James J. "Aging as Exchange: A Preface to Theory." Journal of Gerontology, Vol. 30: 584-602, 1980.

Dowd, James J. "Exchange Rates and Old People." Journal of Gerontology, Vol. 35: 596-602, 1980.

Lemon, Bruce W., et al. "An Explanation of the Activity Theory of Aging." Journal of Gerontology, Vol. 27: 511-523, 1972.

Martin, J. David. "Power, Dependence, And The Complaints Of The Elderly." Aging and Human Development, Vol. 2: 108-112, 1971.

Palmore, Erdman. "Facts On Aging: A Short Quiz." The Gerontologist, Vol. 17: 315-320, 1977.

Sequin, Mary and Beatrice O'Brien. Releasing the Potential Of Older Volunteers (Los Angeles: The Ethel Percy Andrus Gerontology Center, University of Southern California Press, 1976).

Soldo, Beth J. and Emily M. Agree. "America's Elderly." Population Bulletin, Vol. 43, No. 3 (Washington, D.C.: Population Reference Bureau, Inc., September, 1988).

The National Committee On Careers For Older Americans. Older Americans: An Untapped Resource (New York: Academy for Educational Development, 1979).

Self-Reported Memory Problems Among Black Elderly

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There is a growing amount of research on self-assessment of memory problems among the elderly. Although the empirical evidence is far from conclusive, the widespread belief that memory problems typically accompany old age appears to be valid. Elderly people are more accurate in evaluating their memory functioning levels than the young, and their complaints are realistic. Some researchers have emphasized the role of self-evaluation of memory processes as a useful assessment procedure among the elderly.[1,2] Others have identified some of the socio-psychological predictors of these self-reported memory problems.[3,4] However, none have been able to explain more than a small percentage of the variance of this subjective assessment of memory (usually less than 10%). Clearly there is a need for more studies to identify other correlates and predictors of self-reported memory problems among the aged. Furthermore, the self-assessment of memory problems among Black elderly has received very little attention.

Following Cutler and Grams[3], the objective of this research was to extend the study of memory from laboratory and clinical settings to methods of more subjective evaluation, and to assess the prevalence and correlates of these subjective memory problems among a sample of Black elderly. Our investigation included socio-demographic variables (sex, age and education) and health conditions (number of chronic illnesses, trouble with hearing and vision and the comparison of self-reported health status over a two year period), as well as medication use and loneliness. As a result of the inclusion of the above-mentioned factors, the predictive power of our model is expected to be greater than that of models tested in prior studies. The present study is also the only research, to our knowledge, that has dealt with the self-assessment of memory problems among an aging minority population. The results of this investigation may reveal new information about the prevalence and correlates of self-reported memory problems among Black elderly.

Method: Data-- During 1989, two hundred and forty independently living Black residents aged 62 years and older of four urban high-rise apartment buildings were randomly selected and interviewed. All interviews were conducted by trained interviewers in the apartments of the respondents. The sample was predominantly female (81%). Only 9.2% reported the completion of high school (the means for educational level and age were 8.5 and 74 years respectively).

Measures-- Our model consisted of one dependent variable and ten predictors. The dependent variable, memory problems, was assessed by a single question asking respondents to indicate whether "poor memory and forgetfulness" is a very serious problem, a somewhat serious problem, or hardly a problem for them personally.

Health condition was evaluated by four parameters:
1) Number of chronic illnesses (heart trouble, high blood pressure, diabetes, arthritis, respiratory disease, kidney problems, stomach trouble, problems with teeth and gums, circulation trouble in arms or legs, as well as effects of stroke)
2) Perceived change in health status as measured by the question, "Is your health better, about the same, or worse than it was two years ago?"
3) Hearing impairment as measured by the question, "Do you have hearing problems?"
4) Vision impairment as measured by the question, "Do you have eye problems?"

Loneliness was assessed via a question requiring the respondent to indicate whether loneliness was a very serious problem, a somewhat serious problem, or was not a problem at all for him or her. Drug use was ascertained by the interviewers by visual inspection of containers of all medication taken during the two week period prior to interview. The drugs were coded by major therapeutic function and then re-categorized as psychotropic and non-psychotropic. The subjects were divided into five groups on the basis of age (62 to 64, 65 to 69, 70 to 74, 75 to 79, 80 and above). Number of years of formal education and gender also formed part of our model.

Results: Results of the bivariate analysis of the dependent variable, self-assessment of memory, and each predictor indicated that all variables except the number of non-psychotropic drugs used were significantly related to self-assessment of memory. In order to better evaluate the independent impact of each predictor (e.g. controlling for other variables) on self-reported memory problems, we used multiple regression techniques. All variables were entered into the equation except the number of non-psychotropic medications. The justifications for exclusion of this variable are two-fold: 1) as mentioned earlier, in zero order correlation, the number of non-psychotropic drugs taken did not show a significant impact on memory and 2) the use of non-psychotropic drugs was significantly ($r=.51$) correlated with the number of chronic illnesses, a situation which could present a problem of collinearity if both predictors were included in the same equation.

Data presented in Table 1 show that the remaining nine variables explained as much as 24.79% of the variance of self-assessment of memory problems. Of these, only the number of chronic illnesses, the number of psychotropic drugs used, loneliness, and age were significantly related ($p<.05$) to self-assessment of memory problems. Once all other variables were controlled, those Black elderly with a higher number of chronic illnesses, those who are taking psychotropic drugs, those who are older, as well as those who disclose higher levels of loneliness, are more likely to report problems with their memory.

Discussion: This study was designed to examine the prevalence and correlates of self-assessed memory problems among Black elderly. The significance of the present research is that: 1) unlike previous studies, the level of loneliness and the number of medications used as well as other relevant variables (socio-demographic variables and health conditions) were included in our model and 2) this is the first study which examines the self-reporting of memory problems (outside of a laboratory or clinical setting) among Black elderly.

Consistent with our expectations, our predictive model of self-reported memory problems among Black elderly performed considerably better ($R^2=24.79$) than models presented in the research literature. The explanatory power of our model can primarily be attributed to its incorporation of assessments of loneliness, number of chronic illnesses, and medication use. According to our data, loneliness was found to be the preeminent predictor of self-assessment of memory among Black elderly.

In terms of prevalence, more than 52% of the respondents revealed that they had very or somewhat serious problems with their memory. Only 15.4% of our sample of Black individuals aged 62 and older said that poor memory and forgetfulness is a very serious problem for them personally. This statistic is quite similar to findings by Cutler and Grams[3], where they reported that 15% of their national sample of persons aged 55 and older (N=14,564) and 16.3% of persons aged 60 and older said that they frequently had problems forgetting things. Moreover, in our sample, slightly over 36.7% of the subjects said that poor memory and forgetfulness is a somewhat serious problem for them, whereas 39.6% of Cutler and Grams' national sample (aged 60 and older) reported that they sometimes had problems forgetting things.

Another interesting result of the present study is the impact of gender and education on self-reported memory problems. Examining the gross effects of these variables, we discovered that each of them was significantly correlated with self-reported memory problems. That is, women and the less educated disclosed more problems with their memory. When other relevant variables were held constant, both gender and education ceased to be significant predictor variables. These results suggest that female and less educated Black elderly are more likely to complain about their memory, not because they are less educated or female, but possibly because the less educated are more likely to suffer from more chronic illnesses and consequently consume more drugs. Also, since females generally have longer and lonelier lives; they may tend to suffer from more psychological problems and require the use of more medication.

Interestingly, Cutler and Grams[3] reported similar results in their data analysis, with one exception; controlling for other variables, they found that gender did not cease to be a significant predictor. They detected the size of its coefficient (Beta) to be as low as .05 yet still statistically significant. There are at least two explanations for this discrepancy: 1) they did not control for loneliness and drug use; 2) when the sample becomes very large, which is the case in Cutler and Grams study (N=14,564), every variable will have some influence and boost the fit of the model and appear statistically significant.[5]

For this data set, Black elderly with a higher number of illnesses reported having more memory problems. This finding supports that of previous research which also suggested that the memory performance of older adults is related to their health conditions.[3] However, once other relevant variables (including age, gender, education, psychotropic drug use and loneliness) are held constant, neither visual and hearing problems nor self-reported change in health status evidenced a significant association with self-reported memory problems. These results are inconsistent with those of Cutler and Grams[3]. However, as mentioned above, Cutler and Grams[3] did not include variables measuring the extent of drug use and level of loneliness in their model. It appears that in our sample, Black elderly who disclosed hearing and visual problems were more likely to report memory problems because, those individuals who did so were also more likely to be female, older, and to suffer from chronic illness and loneliness.

Almost 16.2% of our sample reported taking at least one psychotropic drug. We detected, in addition, a strong relationship between psychotropic medication use and self-reported memory problems in these subjects. This finding points to the need for greater attention to the consequences of long term use of multiple medications, especially psychotropic drugs, among the elderly. Obviously, more studies are required to identify the pattern of linkages and the causal mechanisms which relate psychotropic medications to memory problems among the elderly. Reviewing the relevant literature, Whittington and Maddox[6] posited that older people have been recognized as "unwitting victims of either their physicians, their medical custodians, or their own lack of understanding, skill or care (p. 618)." Other researchers have identified the misuse of drugs among the elderly as a common and significant problem.[6,7,8] Therefore, it is reasonable to suggest that proper documentation of the therapeutic necessity for prescribing psychotropic drugs to elderly patients, a clearer understanding of a patient's individual drug regimen and greater consideration of the mental status of the patient, should become integral components of treatment. This improved therapeutic approach to the elderly patient could do much to enhance the memory functioning of this growing segment of the population.

Table 1. Regression of Memory on Socio-Demographic and Health Related Variables and Loneliness (N=240).

Variable	SE B	Beta	B/SE B	Sig T
No. of chronic illnesses	.026	-.193	-3.138	.001
Education	.011	.086	1.467	.143
Gender	.108	.107	1.848	.065
Hearing problems	.103	-.071	-1.198	.232
No. of Psychotropic drugs	.093	-.161	-2.667	.008
Age	.033	-.148	-2.499	.013
Change in health status	.057	-.017	-.295	.768
Loneliness	.065	.230	3.797	.000
Eye Problems	.088	.015	.262	.793
(Constant)	.299		7.103	.000

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References

1. Poon, Leonard W., James L. Fozard, and N. J. Treat. 1978. "From Clinical and Research Findings on Memory to Intervention Programs." Experimental Aging Research. 4:235-255.
2. Zelinski, Elizabeth M., Michael J. Gilewski, Larry W. Thompson. 1978. "Do Laboratory Tests Relate to Self-Assessment of Memory Ability in the Young and Old." In Leonard W. Poon, James L. Fozard, Laird S. Cermak, David Arenberg, and Larry W. Thompson (Eds.), New Directions in Memory and Aging: Proceedings of the George A. Talland Memorial Conference. Hillsdale, NJ: Lawrence Erlbaum Associates.
3. Cutler, Stephen J., and Armin E. Grams. 1988. "Correlates of Self-Reported Everyday Memory Problems." Journal of Gerontology: Social Sciences. 43:S82-90.
4. White, Nancy, and Walter R. Cunningham. 1984. "The Relationships Among Memory Complaint, Memory Performance, and Depression in Young and Elderly Adults." The Gerontologist. 24: Special Issue/October:205.
5. Achen, Christopher H. 1984. Interpreting and Using Regression. Beverly Hills, CA: Sage Publications.
6. Whittington, Frank J., and George L. Maddox. 1986. "A View from Sociology." The Gerontologist. 26:618-621.
7. Simonson, William. 1986. "The Viewpoint of a Clinical Pharmacist." The Gerontologist. 26:603-605.
8. Simonson, William. 1984. Medications and the Elderly: A Guide for Promoting Proper Use. Rockville, MD: Aspen Systems Co.

II.

INNOVATIVE APPROACHES IN GERIATRIC EDUCATION: PART 1

Objectives:

1. Utilize literature to teach health professions students about caregiving from the patient's viewpoint.
2. Employ simulation games effectively as problem-based learning tools in geriatric education.
3. Identify the advantages of using a continuing education format to instruct health professions students in gerontology/geriatrics.

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*Lisette Kautzmann, EdD, OTR, FAOTA Eastern Kentucky University	Using the Humanities to Educate Students: Images of Caregivers in Poetry and Prose
*John R. Kues, PhD *Philip J. Schwartz, MSW Dorothy M. Braun, MSW Evelyn Fitzwater, MSN Kenneth A. Frederick, MD M. Shane Gainey, MD Lesha B. Greengus, MHA Sylvia Pacholder, LPT University of Cincinnati	The Development and Use of Gaming in Multidisciplinary Geriatric Education
*Stanley R. Saxe, DMD, MSD B. Lynn Theiss, DMD Robert G. Henry, DMD, MPH James M. Mixson, DMD R. Raynor Mullins, DMD University of Kentucky	Using Adult Learning Techniques to Enhance Student Acceptance of New Curricula in Gerontology/Geriatrics

*Denotes Presenter

USING THE HUMANITIES TO EDUCATE STUDENTS: IMAGES OF CAREGIVERS IN POETRY AND PROSE

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Educators of health professionals recognize the need to teach students to consider the values and concerns of elderly persons in treatment planning and service delivery. Effective accomplishment of this goal is a challenge for several reasons. Students may have difficulty discussing the concerns of persons who are signficantly older than themselves. Also, they may feel inadequate in communicating with and understanding persons who have deficits in hearing and difficulty speaking.

An additional barrier is related to students' development. As emerging health professionals, students typically focus on their abilities to perform clinical skills related to evaluation and treatment. At this stage of their professional career, they look for structure and routine to ease their performance anxiety. It is difficult for them to give up control and to move beyond concern for their own performance and focus on patients as individuals. In addition, students frequently are not aware of the impact and depth of meaning attached to an individual's values and assume that their own knowledge and value bases are sufficient for making decisions about the care of elderly persons.

From an educational perspective, the challenge is to identify methods that will increase students' awareness of the needs and concerns of elderly persons and thus enhance their ability to communicate effectively with the elderly regarding health care needs. Using the humanities to project images of caregivers from recipients' perspectives is an effective means of sensitizing students to the effects of their attitudes and behavior on elderly persons. Seeing themselves through the eyes of the elderly, as expressed in poetry and prose, has a dramatic impact on students' affective and cognitive understanding of effective health care delivery. The purpose of this paper is to identify how selections from literature may be used to influence cognitive and affective change in students' understanding of the values and concerns of elderly persons.

Literature Review

McElhinney (1983) indicates that the humanities, along with theory and practice, are the three fundamental education themes for health professions. Additionally, the humanities provide the cultural foundation from which students gain self-understanding and learn to evaluate their profession and its societal responsibilities (McElhinney, 1983).

It has been suggested that the humanities have the power to present the lives and perceptions of others in ways that allow us to identify with them (Pohek, 1968). Thus, students gain knowledge and insight that have the potential to free them from the barriers of their limited vision and understanding. In examining the use of literature to educate students about the elderly, it has been suggested that literature increases sensitivity to aging and to the elderly (Portnoy, 1987), illustrates the complexity of issues related to aging and older adults (Briggs, 1989), allows students to reflect and examine their attitudes and beliefs, and shapes perceptions of old age (Briggs, 1989).

It is encouraging to note that there has been increasing interest in integrating the humanities into the education of students in the health professions (Pellegrino, 1981; McElhinney, 1983). Germain (1986) reported on the use of one literary work "Heart Sounds," (Lear, 1980) in a unit on the manifestations of coronary artery disease and implications for nursing care. It was proposed that use of literature facilitated integration of four types of nursing knowledge: scientific knowledge of human behavior in health and illness, esthetic perception of significant human experiences, personal understanding of the unique individuality of the self, and the capacity to make choices within concrete situtions involving particular moral judgements (Germain, 1986).

Courses on literature and medicine have been described by several authors. Radway and Adelson (1987) reported on their use of literature to teach medical ethics. Books, plays, and poems with medical and non-medical themes were used by Calman, Downie, Duthie, and Sweeney (1988) to introduce medical students to literature, broaden their life experience, encourage them to reflect on their attitudes, and to consider the feelings and views of others.

Discussion

In examining the literature several themes emerged. These include the use of role models and case histories taken from literature to provoke discussion and contemplation related to (1) ethical decision making, (2) clinical reasoning, and (3) professional behavior.

Although there is agreement that literature is a powerful tool for teaching empathy and instilling drama in the teaching-learning encounter (Pellegrino, 1981), there have been no reports of using literature from the care receiver's perspective to influence the development of students' attitudes and therapeutic use of self. This is a significant ommission because frequently the care receiver's perception of health professionals is negative. The cause of the negative perception typically is rooted in the health professional's lack of concern or empathy with the care receiver's values, needs, and concerns and an unwillingness to allow the care receiver to be a participant in the clinical decision making process. The strength of these negative perceptions can make a dramatic impact on students and thus potentially contribute to the development of attitudes and behavior that reflect willingness to consider care receiver needs and to individualize treatment.

Two approaches are suggested for introducing literature into the classroom. These can be used individually or separately. They are (1) reading from the literature and discussion of the reading in the classroom and (2) assigned reading outside of the classroom with a book report or other written assignment and classroom discussion of the reading. Selections from the literature for both types of assignments are included in the references and readings.

The selections for in class reading should be short, dramatic, and focused. It is difficult to find selections that meet this criteria. However, three selections (Lyon, 1985, Maclay, 1977, pp 46-48; and Slone, 1985) succinctly describe care receivers' attitudes toward their care givers. In addition, exerpts from Sarton (1973 pp. 53-60; 82-85; 92-99) portray the positive impact of care givers that respect the dignity and humanity of the individual care receiver.

There are a number of books about people's perceptions of their care. Examples that focus on experiences of older adults include "Anatomy of an Illness (Cousins, 1979), "No Laughing Matter," (Heller and Vogel, 1986), "Episode," (Hodgins, 1964), "Heart Sounds," (Lear, 1980), and "Spence and Lila," (Mason, 1988). These tend to be less focused, obvious, and dramatic than the shorter selections. Focus questions and directed discussion are required to elicit desired student responses.

Conclusions

There is growing recognition of the value of the humanities in the education of health professionals. Use of selections from literature has the potential to influence students' perceptions of their role as care givers. It also can provide students with understanding and motivation to move beyond their focus on learning appropriate technical and psychomotor skills to consider ways to empower the recipients of care and recognize the value of individualizing treatment.

References

Briggs, R. (1989). Interdisciplinary education: The neglected discipline. In Humanities and Ethics in Geriatric Education, Lexington, KY: Ohio Vallay Appalachia Region Geriatric Education Center Model Curriculum Series.

Calman, K. C., Downie, R. S., Duthie, M., & Sweeney, B. (1988). Literature and medicine: A short course for medical students. Medical Education, 22, 265-269.

Germain, C. P. (1986). Using literature to teach nursing. Journal of Nursing Education, 25, 84-86.

Lear, M. W. (1980). Heart Sounds. New York: Simon & Schuster.

Lyon, G.E. (1985) Housekeeping. Appalachian Heritage, 13(1&2), 69-70.

Maclay, E. (1977). Green winter: Celebrations of old age. Readers Digest Press.

McElhinney, T. K. (1983). Placing the humanities perspective in the health professional curriculum. Journal of Allied Health, 12, 221-228.

Pellegrino, E. D. & McElhinney, T. K. (1982). Teaching ethics, the humanities, and human values in medical schools: A ten year overview. Washington, DC: Institute of Human Values in Medicine, Society of Health and Human Values.

Pohek, M. V. (1968). Literature, life, and learning. In C. E. Kellam A literary bibliography on aging. New York: Council on Social Work Education, vii.

Portnoy, E. (1987). Finding "the key" to aging. Speech Communication Teacher, Winter, 25-26.

Radway, S. M. (1987). The use of literary classics in teaching medical ethics to physicians. Journal of the American Medical Association, 257(12), 1629-1631.

Sarton, M. (1973). As we are now. New York: W. W. Norton.

Slone, V. M. (1985). Home at last. Appalachian Heritage, 13(1&2) 71-73.

The Development and Use of Gaming in Multidisciplinary Geriatric Education

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The Game of Institutional Long-Term Care is a problem-based simulation developed as part of the OVAR/GEC workshop series. It was created by a multidisciplinary team at the University of Cincinnati who conducted day-long workshops at five participating institutions. The focus of the game, and the workshops, was problem solving in interdisciplinary geriatric care environments. The development team worked under two overriding mandates in the creation of the game: 1) the game must teach new skills or convey new information to the workshop attendees; and 2) the attendees must leave the workshop with new teaching tools which they can easily adapt to their students/staff and training situations.

In reviewing the literature on interdisciplinary problem-solving and through discussions among the planning team members it became apparent that the process of interaction and communication was at the heart of how problems are successfully identified and solved in institutions. The affective components of the process were at least as important as the information exchange and knowledge needed to solve problems. Role playing was immediately thought of as a way to address both the communication and affective aspects of multidisciplinary problem solving. Role-playing alone, however, lacked the continuity that exists in the real world where relationships evolve through the course of interaction with several problems. The development team also felt that issues of equity, compromise, competition, and cooperation were important to address. These topics cannot easily be brought out in limited encounters which are typical of most role playing exercises.

The idea of developing a game had many attractive features. First, it allowed the inclusion of role playing with the additional advantage of repeated, evolving interactions among the players during the course of the game. It also allowed the development team to place an appropriate amount of structure around role interactions which would help insure that important issues and concepts would be addressed.

The development of the actual game was an attempt to extract the critical features of problem-solving in multidisciplinary health care teams and allow the players the freedom to role play while they attempted to solve a series of specific problems. The first decision was to identify a long-term care institution as the "environment" in which the game takes place. These institutions employ a range of health care professionals who must work as a team to solve problems around the care of patients. Six professional roles were identified for inclusion in the game: physician, nurse, administrator, social worker, physical therapist, and family member. The decision to include these players was based primarily on the makeup of the planning team and their professional training. Characters for each of these professions were developed. The character profiles typically included age, education, marital status, children, family information, and work history. Additionally, each character was given a set of goals which he/she was to achieve. Players were scored on how well they achieved their goals while solving problems. The goals of some players conflicted with goals of other players. This was done to provide realistic conflicts that exist among different professions. It also set up the potential for compromise and competition among players. It was decided to exclude the patient as an active player in the game, however, there was a detailed description of the patient and all of the problems to be solved revolved around this patient. The decision to exclude the patient was based on the belief that many patients in long-term care institutions are not actively involved in their care and most of the problems about their care are solved without their active participation. However, family members are typically very involved in decisions about the care of patients and frequently raise concerns or objections to decisions that are made. The family member, therefore, became an important character in the game.

The problems that the players were required to solve as part of the game were common occurrences for patients in long-term care institutions. They included falls, dementia, depression, dissatisfaction with the institution or with care, and changes in health status. There was an attempt to make the actual incidents/problems broad enough that all of the characters could participate in the development of a solution. In addition to the primary problem to be solved each problem had a series of randomly determined institutional issues which were also occurring at the same time and which the players had to consider. Some of these included staffing cutbacks, law suits about the care of other patients, budget concerns, family/personal problems for one or more of the players, etc. These were added to put the primary problem in an institutional perspective which often has a myriad of issues to address at any particular time.

The game was played in "rounds." A round consisted of a single patient problem and one or more institutional issues being read by one of the players. A 10 minute period followed in which the players discussed the issues and developed a plan of action. Each player was striving to reach a solution which maximized his/her goals. Players did not know the goals of the other players and therefore had to guess at everyone's goals in order to arrive at a solution that would be acceptable to everyone. Judges (other workshop participants who were not players) were given information on every player's goals and instructed to score each player on the basis of how well he/she attained the stated goals for his/her character. In addition, to highlight the importance of compromise, a coefficient of cooperation was calculated (highest score minus lowest score for the round). The points scored in the round were awarded to players if a roll of the die exceeded the coefficient of cooperation.

The role of the facilitator was critical to the game and the learning experience. The facilitator introduced the game and the learning objectives. Emphasis was placed on the importance of communication, information exchange, and negotiation. At the end of each round there was a short discussion period while the judges were conferring over the scores. The discussion focused on affective reactions to the round, attitudes toward the other characters, and observations about the process by the facilitator.

There were several developments which typically occurred over the course of several rounds. Alliances often developed between the physician and the nurse. The family member was systematically excluded from health care discussions involving the institutional staff. The administrator was frequently seen as arbitrator of institutional disputes. Solutions were reached faster and with more compromise and satisfaction as the game progressed. The issues behind these developments provided important learning material which the facilitator brought to the attention of the participants during a discussion period at the end of the game.

In evaluating the experiences of the group facilitators and participants several observations were made. The participatory orientation of the game was viewed positively and most participants believed that they gained insights that would have been impossible in other educational modalities. The game excluded many other health care professionals, especially dentists and pharmacists, however, it would not be difficult to create any number of additional characters. Participants felt that the game could be useful in many educational settings and with students at different levels of training although the objectives may have to be adjusted to the skill level of the students. The game can, and did, evoke relatively strong affective reactions from some players and required skill by the facilitators to mediate the resulting feelings. It is important that the facilitators be skilled at observation and leading discussions to insure that all of the learning issues are addressed. Finally, the developers and participants generally believe that ***The Game of Institutional Long-Term Care*** is a useful educational tool which has the potential to improve multidisciplinary problem solving skills.

Bibliography

Barrows, H.S. and Tamblyn, R.M. (1980). Problem-Based Learning: An approach to medical education. New York: Springer.

Barrows, H.S. (1971). Simulated Patients. Springfield, Ill.: Thomas.

Benware, C.A. and Deci, E.L. (Winter, 1984). Quality of learning with an active versus passive motivational set. American Educational Research Journal, 21, 755-65.

Hodgkin, K. and Knox, J.D.E. (1975). Problem Centered Learning. New York: Churchill Livingstone.

Maatsch, J.L. (1974). An Introduction to Patient Games: Some fundamentals of clinical introduction. Michigan State University: Biomedical Communications Center.

McGuire, C.H. and Babbott, D. (Spring, 1967). Simulation technique in the measurement of problem solving skills. Journal of Educational Measurement, 4.

USING ADULT LEARNING TECHNIQUES TO ENHANCE STUDENT ACCEPTANCE OF NEW CURRICULA IN GERONTOLOGY/GERIATRICS

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In 1968 Malcolm S. Knowles wrote to the publishers of the Merriam-Webster dictionaries seeking advice on the coining of a new word. This new word, andragogy, was to be used by Knowles to describe the technology of adult education. This new technology was to be distinguished from "pedagogy" derived from the Greek words *paid*, meaning child, and *agogos*, meaning leader. The Greek word *andros*, meaning man, was the closest Greek word Knowles could find for the term "adult". This new word, andragogy, was used to describe Knowles's set of assumptions about certain ways in which adults are different from youth as learners (1).

The book published by Knowles in 1970 was a major step in the recognition that traditional classroom teaching methods utilized for young people were not always the most successful for teaching adults. The general principles of adult education as promulgated by Knowles included a change in the learning climate. The physical environment was one in which adults feel at ease. "Meeting rooms" were described instead of classrooms. The psychological climate was one in which "adults feel accepted, respected and supported; in which there exists a spirit of mutuality between teachers and students as joint inquirers; in which there is a freedom of expression without fear of punishment or ridicule" (1). Knowles described an atmosphere friendly and informal, without status differentiation between teacher and student.

Traditional pedagogical techniques such as lectures continue to be contrasted with learner-based adult education techniques. Barrows, for example, contrasts the lecture-based method of instruction with problem-based learning. The lecture method is the least expensive in terms of cost, time and effort for teachers. It requires the least effort for curriculum planners and no special teaching skills or materials (2). Problem-based learning is noted by Barrows to require complex problem simulations for both teaching and evaluation. The method requires scheduling of time and development of resources. Teachers need facilitatory teaching skills. Recently, comparison of traditional didactic instruction with adult learning techniques for the teaching of aging was done by Mellor (3). She notes that in the traditional methodology the instructor's leadership role is one of being directive, the "Expert" being informative, thorough, certain, systematic, expressive, dramatic, charismatic, entertaining, and retains leadership. In adult learning the role is one of being facilitative, the "Coach" encouraging sharing and risk-taking in others; allows people to perform and practice; gives feedback; shares leadership. The teaching tools in traditional instruction are the lecture, question and answer, audiovisuals, tests, outlines, reading material versus the emphasis in adult learning on case study, role play, simulation, case vignettes, small group discussion, brainstorming, problem solving, games, and self-assessment. The main focus traditionally has been on facts, figures, research findings, standards, etc., which Mellor contrasts to adult learning techniques which focus on needs, attitudes, values, feelings, problems, skills practice, awareness, relationships and interaction with others.

Reasons for change to adult learning techniques in general medical education have been described by Tosteson (4). He writes of the "heavy use of didactic instruction in the form of lectures ..... the emphasis on the teacher's role as an expert source of information." Adjustments in the form and content of medical education are necessitated by changes in medical practice, with more attention "devoted to the development of attitudes and skills at the expense of the current preoccupation with technical knowledge."

Dental school curricula continue to receive calls for change both in content and format. Changes in oral disease patterns, the necessity to care for a growing number of frail and functionally dependent older adults and research advancements were the basis for content change in a re-structured predoctoral curriculum. The life-long learning concept continues to be stated as a challenge for format change in dental education.

Background

Many new courses in gerontology/geriatrics are being inserted in existing health professions curricula. For many institutions this means adding a course or courses to an already well-established existing curriculum. This was true at the University of Kentucky College of Dentistry where a first year course in gerontology and a fourth year course in geriatric dentistry were added. These new courses were perceived as "add-ons" by some students and not relevant to their immediate goals. Gerontology and geriatric dentistry were considered by some students to be of greater interest to an already graduated and practicing dentist in contact with and providing care for older adults. The Head of the Educational Program of the College was promoting the life-long learning concept by establishing a continuum of education beginning within the curriculum and continuing beyond graduation using the traditional continuing education course all-day concept. As customarily done, this is an away-from-campus meeting of one or more days with provision of course materials, handouts, refreshment breaks, lunch and completion of a traditional course evaluation instrument. The decision was made to offer gerontology and geriatric dentistry on a trial basis in such a format to the fourth year class.

Method

Two 8 1/2 hour days, 5 days apart, were scheduled for the 35 members of the fourth year dental class. Session I was designated for gerontology, and Session II for geriatric dentistry. Currently enrolled third year students who had already taken the gerontology course were to join the fourth year students for Session II. Within the context of the continuing education format, Session I used techniques associated with adult learning. The 35 students used classroom style seating with tables. Two instructors worked together during the day. Learning strategies included scripted role playing, video trigger tapes and small group discussions. At Session II a theatre-style chair arrangement was used, the number of students present was more than doubled by adding third year students, multiple instructors (five) were used, and with the exception of one closing sequence, all material was presented by conventional lecture methods.

A 12 question pre- and post-test was used for Session I and a 14 question evaluation form. A 10 question pre- and post-test was used for knowledge testing in Session II and the evaluation questions were the same as for Session I. Evaluation statements were stated as positives, with a choice of one of five points on a Likert scale ranging from 1 "strongly agree" to 5 "strongly disagree." Comments were also elicited.

Results

Session I knowledge pre-test correct answers were 30 percent. Post-test correct answers more than doubled to 68 percent correct. Session II post-test correct answers increased 16.4 percent from 72 percent pre-test to 88 percent. Both sessions showed statistically significant improvement. Evaluation scores for fourth year students who were in both Session I and

Session II were 1.38 for Session I and 1.73 for Session II. Third year students only in Session II had a mean score of 2.38. Both Session II scores were significantly different from the Session I score ($p < .01$) and from each other ($p < .01$).

Conclusions

Two all-day sessions of gerontology and geriatric dentistry using an away-from-home campus continuing education format were held for dental students. One session employed adult learning techniques; the other session used mostly traditional techniques. While strict comparisons cannot be made between Sessions I and II because of the difference in course content and because of the differences between third and fourth year students, it was obvious from scores and comments that the adult learning session was the format preferred by students who had been in both sessions. Students demonstrated learning in both sessions. Holding constant the continuation education format of away-from-campus but using different teaching methodologies in this pilot investigation provided insight into the value of the methodology. We infer and will have to test that the teaching methodology more than the away-from-campus format is more helpful to win student acceptance and learning. This pilot effort suggests further investigation be done of adult learning techniques within the institution using some of the givens associated with successful continuing education programs (larger blocks of time than the conventional 50-minute hour, open space versus fixed theatre-style seating). If our goal is to change beliefs and values, and to develop caring attitudes in health professions students we will need to test and validate appropriate learning strategies.

References

1. Knowles, M.S. The Modern Practice of Adult Education. Association Press, New York, 1970.

2. Barrows, H.S. A Taxonomy of Problem-Based Learning Methods. Medical Education 1986; 20: 481-486.

3. Mellor, J. "Teaching Aging Differently" a symposium presented by the Hunter/Mount Sinai Geriatric Education Center at the Gerontological Society of America annual scientific session, Minneapolis, Nov. 1990.

4. Tosteson, D.C. New Pathways in General Medical Education. New Engl J Med 1990; 322: 234-238.

II.

INNOVATIVE APPROACHES IN GERIATRIC EDUCATION: PART 2

Objectives:

1. Discuss the role that workshops involving participants and presenters from a variety of disciplines can play in fostering interdisciplinary understanding and cooperation.
2. Describe a program designed to meet the needs of nurses in a variety of settings for information regarding nursing management of older adults with Alzheimer's Disease.
3. Describe the advantages to both students and staff of a multidisciplinary academic health care clinical training program in a specialized health care facility.

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*Barry W. Ceridan, DDS Arthur Van Stewart, DMD, PhD Jane M. Thibault, PhD University of Louisville	Use of a Two-Day Geriatric Dentistry Workshop as a Combination Teaching Tool and Resource Base for Geriatric Educators and Clinicians
*Mary K. Walker, PhD, RN Freida Fuller, MSN, RN University of Kentucky	Nursing Management of Acutely Ill Elders with Alzheimer's Disease
*Susan D. Gilster, RN, BGS, NHA Ann L. McCracken, RNC, PhD Alois Alzheimer Center Cincinnati, OH	A Unique Teaching Opportunity: A Specialized Facility for Persons with Alzheimer's Disease
*Jacqueline Fischer Stewart, BA Arthur Van Stewart, DMD, PhD University of Louisville George Dunn, LCSW Norton-Alliant Hospital Louisville, KY	Examination of the Role of a Hospital-based Geriatric Psychiatric Unit for Enhancing the Professional Preparation of Social Workers

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USE OF A TWO DAY GERIATRIC DENTISTRY WORKSHOP AS A COMBINATION TEACHING TOOL AND RESOURCE BASE FOR GERIATRIC EDUCATORS AND CLINICIANS

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Background

The dental profession has been concerned about the health and wellbeing of older persons throughout its existence as a formally constituted health service agency. Within the scope of dentistry a number of specialized dental services traditionally have been directed toward the care of older persons. Foremost among these is the field of Prosthodontics, the creation or artificial replacements (prostheses) for missing teeth. Over the years a few dentists sought to develop an even higher level of care for the "frail, elderly patient" and are recognized as the forebearers of the field of "geriatric dentistry."

In the 1960's the dental profession decided to transform its historical approach to dental care from a "repairman" philosophy to a "health care manager" philosophy. The new philosophy included a much greater emphasis on prevention, since both dental cavities and periodontial disease are largely preventable. The new emphasis on prevention had a profound impact on the practice of dentistry and on the involvement of patients, government officials, pharmacists, physicians and others in preventive efforts. Unfortunately, it also tended to focus the profession's goals and objectives on children, adolescents and young adult patients at the expense of the older patients.

It was not until the 1980's that dentistry considered its preventive program to be sufficiently mature, stable and effective that the profession began to react to the profound changes in the demographic profile of our country. During this decade new textbooks on Geriatric Dentistry were published, more professional continuing education courses became available, and steps were taken to create a cadre of highly trained semi-specialists in Geriatric Dentistry. Membership in the American Society for Geriatric Dentistry and its affiliated organizations began to expand. Postgraduate Fellowships became available so that practicing dentists could receive as many as two years of formal training in the care of the elderly patient. And, most recently, the American Association of Dental Schools (with support from AIA) offered a series of workshops for dental school faculty to help them to learn more about the process of teaching gerontology and geriatric care to the next generation of dentists, specialists, dental hygienists and dental assistants. This effort to redefine the curricula at the dental schools has all taken place within the last three years. Therefore, the impact of this new initiative on the active practitioners is only just beginning to be felt.

Workshop Considerations

Because most of these efforts to teach dentists how to care for geriatric patients are so new, almost none of the dentists already serving the community have had any formal training in, background for, or experience with treating geriatric patients. This includes those individuals who already have begun working with nursing homes, visiting nurse programs, hospitals, and other agencies which serve older people. Those practioners already working in the communiunity are doing all they can for the geriatric population in spite of this lack of formal training.

Another consideration is that, generally speaking, there are only a few individuals in any community who will offer to provide geriatric dental care. This adds to the general problem. Those working in the field of geriatric dentistry practice in isolation from each other and lack the advantages of networking and support groups. Only those individuals assigned to VA hospitals, teaching institutions or government clinics may be part of a cohesive group effort or have the opportunity to discuss problems with similarly oriented colleagues in the field. Even those dentists who are officially designated as "dental consultants" may be woking alone since most nursing homes have only one dentist serving as a consultant.

The result of this has been that dentists and dental hygienists working in the field of geriatric patient care have had difficulty in keeping up with the issues related to the field such as the newest series of federal and state requirements and regulations. They are unsure about the best treatment plans for complex cases. They lack information about the latest portable equipment, and generally feel frustrated in their attempt to provide high quality geriatric services. This frustration may have been exacerbated in the past several months as the nursing homes sought to upgrade their dental services programs in anticipation of the implementation of the OBRA legislation which becomes effective in October, 1990.

Creation of the Workshop

Dr. Barry Ceridan, one of the foremost geriatric dentists in the country and a Clinical Assistant Professor at the University of Louisville, reviewed these problems confronting practicing dentists and made the decision to plan and develop a two-day conference/workshop for practicing dentists and dental hygienists involved with or concerned about their ability to provide quality dental services to geriatric patients, particularly to residents in nursing homes. He secured partial financial support from the Visiting Nurses Association of Louisville (with whom he had a long-standing affiliation) and recruited faculty from the University of Louisville's Urban Center on Aging as well as representatives from community service area agencies to serve as speakers and workshop discussion leaders.

Program Presentation

Announcements and letters of invitation were sent to dental offices in a five state area alerting them to the conference. The program was entitled, "FIRST ANNUAL WORKSHOP TRAINING OF GENERAL DENTISTS IN NURSING HOME - HOMEBOUND DENTISTRY". On January 12-13, 1990 the workshop was held at a hotel in Louisville, Kentucky. Approximately 30 dentists, dental students, dental faculty and post-graduate geriatric dentistry Fellows participated in the program.

Among the major topics presented were:

1) Assessing the Patient - psychological, medical, dental, legal, social services and other considerations.

2) Establishment of the Dental Program in Nursing Home & Homebound patient care settings.
3) Community Dental Programs - a model homebound dental program sponsored by the Visiting Nurse Association of Louisville.
4) Understanding the Nursing Home Environment.
5) Developing an Effective Dental Services Program for a Nursing Home.
6) Records Management, Consulting, and Problem Solving
7) Contracts, Agreements and Affiliations.
8) Role, Responsibilities, and Opportunities for Dental Consultants.
9) Portable Equipment.
10) Support services from community agencies.
11) Financial Considerations and Expectations.
12) OBRA: What Dental Services Will it Require?
13) Headaches, Heartaches, and Frustrations: Barriers and Problems associated with Nursing Home dental programs.
14) Helpful Hints and Other Guides to a Successful Program.

Collaborative Learning Model

Because the participants were at different stages in their professional careers, came from different states (with different laws and regulations) and had differing amounts of experience with geriatric dental service programs, the Workshop was designed to nuture a rich exchange of ideas, suggestions, questions, and dilemmas. To a much lesser degree than usually happens during a continuing-education type course everyone served as teacher and everyone became a learner as the different topics were reviewed ad discussed. The list of topics prepared by Dr. Ceridan and the high level of professional expertise and practical experience of those at the meeting combined to create a truly collaborative learning mode throughout the two days of the program.

Program Evaluation

All participants were invited to evaluate the 1990 workshop and asked to list topics they wished to discuss in greater detail at the 1991 program.

The written and verbal feedback from the participants was quite favorable with 95% indicating the Geriatric Dentistry Program was "excellent" or "very good." Comments on the assessment forms also indicated that the participants judged the content to be "clear and well taught." Similarly, they reported that they had enjoyed meeting the speakers, especially those from non-dental fields such as the gerontological nurse, community agencies, and social worker since these were professions with which they usually had very little contact. It was also clear, that the speakers and panelists at the Program could not answer all of the specific questions that arose between dentists and nursing home administrators and staff. There also was more than a little bit of frustration that nobody could absolutely report on the federal government's final set of rules and regulations related to the new OBRA legislation. (Even telephone calls to the ADA national offices in Washington failed to clarify this keep point which would become a major consideration before the next workshop could be held.)

Suggestions and Program Recommendations

The participants clearly thought the two day workshop was worth their time and registration fees. One person noted that just knowing that other individuals were having some of the same problems he was having *by itself* was reassuring. Also it by mutual agreement the list of faculty and registrants was to be typed out with names, addreses and telephone numbers so that those who attended the session could become an unoffical support (self-help) group during the coming year. Among the specific suggestions offered for next year's program were:

1) try to demonstrate some of the state-of-the art portable equipment
2) review all of the new OBRA requirements, rules and regulations
3) invite a nursing home administrator to give "the other side" of the nursing home dental services story
4) review some of the commonly encountered drugs used with geriatric patient care but otherwise only infrequently encountered in dental practice
5) discuss alternate payment plans, contracts, and programs which might support dental care for the elderly both at home and in long-term care facilities
6) review Kentucky Medicaid/Medicare payment programs as they pertain to dental care
7) review the advantages/disadvantages of establishing a patient transportation service so that elderly patients can more easily be brought to the traditional dental office
8) discuss the appropriate role of the dental hygienist and expanded duties dental assistant in nursing home settings
9) review the possible educational activities for dentists who cannot leave practice to take the two-year (24 month) geriatic dentistry fellowship program
10) ask each participant to bring a sample "problem case" (clinical, financial, or administrative case study) for the combined group to discuss so that problem identification and problem solving skills might be sharpened
11) consider inviting other specialties to attend the meeting, including non dental personnel as well as Prosthodontists, Periodontists, and Oral Pathologists
12 discuss future networking possibilities so that area dentists might have a regular, recurring opportunity to get together and discuss issues associated with geriatric dental services.

Conclusion

The two-day geriatric dentistry workshop developed by Dr. Ceridan and supported by the Visiting Nurse Association and the University of Louisville faculty appears to have met all of its original goals and objectives. The reaction of the particpants to this unique program was overwhelmingly positive. Word about the program even filtered into West Virginia and Dr. Ceridan was subsequently invited to develop a similar workshop for dentists and dental auxiliaries in that region. The program served to become a resource base for those who attended and participated in the workshop. Finally, and probably most noteworthy, the program evaluation forms indicated that all but one of the participants reported that they definitely would plan to attend the 1991 program when it is offered in Louisville next January.

NURSING MANAGEMENT OF ACUTELY ILL ELDERS WITH ALZHEIMER'S DISEASE

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In 1985, there were 28.6 million people 65 years of age or older in the United States (US Bureau of Census, 1986). Current projections indicate that this population of older adults will continue to expand well into the 21st century. While there are many features of biological, social, physical, functional, and psychological decline associated with aging, none is considered more frightening to individuals or their families than development of Alzheimer's disease. Changes in cognitive function are considered part and parcel of the aging process. Alzheimer's disease, on the other hand, is a progressive disorder associated with loss of intellectual abilities in affected persons (Teri, Larson, & Reifler, 1988). These losses impair social or occupational function, and produce alterations in memory, abstract thinking and judgment, higher-order cortical functions, and personality (American Psychiatric Association, 1980). Alzheimer's disease, in its moderate to severe forms, affects approximately 5% of the 28.6 million persons over the age of 65 and more than 20% of individuals over the age of 80 (LaRue and Jarvik, 1987). Despite increased scientific attention, little is known about the factors which cause or contribute to development of dementia. Epidemiological investigations suggest a relationship between Alzheimer's disease and a variety of medical, demographic, or lifestyle characteristics (Brody, 1982; Heyman et al., 1984). A positive family history has been reported as a major risk factor (Heston, et al., 1981). In fact, a variety of biological markers for dementia of the Alzheimer's type, notably haptaglobins, HLA typing, and pylothermal responses, have been suggested in an attempt to identify individuals at risk for the development of this tragic dementing disorder (Jarvik et al., 1982; Matsuyama & Jarvik, 1982). However, at this point in time, definitive data on the predictive validity and etiological significance of these indices are lacking.

For purposes of discussion, Alzheimer's disease is a biological or pathological diagnosis. Dementia, on the other hand, is principally a behavioral diagnosis characterized by alterations in the response patterns of individuals as a result of internal, structural, and neurochemical changes (Maletta, 1988). Alterations in structure and neurochemical function associated with Alzheimer's disease are manifested in confusion, disorientation, and a lack of awareness of surroundings and behavior. Further, alterations in behavior may include the inability to manage financial affairs, legal obligations, self-care needs, and instrumental activities of daily living, as well as manifestations of fearful, aggressive, irritable, wandering, and anxious behavior (Teri et al., 1988).

Nurses are major resources for individuals and families in the profound and devastating circumstances surrounding the care of persons with Alzheimer's disease. The role of these nurses can be enhanced and expanded through systematic education about the care requirements of individuals and families affected by dementia. The thrust of this project is two-fold: to develop conceptually-based educational modules in written, slide, and videotaped format which can be distributed to facilities across the United States for continuing education purposes; and to test these educational modules as interventions using a structured evaluation component to assess individual and organizational impact of such structured programming. These materials are unique in that they target, first and foremost, nurses in acute care and critical care settings for educational development in the area of Alzheimer's disease and related dementias. Many nurses in education, service, and administration completed their basic educational preparation 20 years ago when gerontological and geriatric content was not routinely included in curricula. While nurses are experienced in the clinical, administrative, and educational aspects of patient care, systems have not been developed in acute or critical care settings which are responsive to the unique needs of older adults with a dementing disorder. Expanding the geriatric knowledge base of practicing nurses through systematic continuing educational offerings is essential if nurses are to gain mastery over the situations they encounter in caring for compromised demented older adults.

The entire program consists of nine independent, conceptually-based modules which can be used individually regarding specific aspects of care. The modules can also be presented in four-hour or eight-hour blocks to provide more comprehensive continuing education. Nine written module guides, four videocassette tapes, and a series of slides regarding psychotropic drug use comprise the materials that were developed for this project. The program begins with core content regarding the biological aspects of normal aging. This content addresses the physiological, social, and functional changes which are part of the aging process and the constructs and theories of aging, based on post-maturational developmental changes.

The use of conceptually-based modules, while a frequent formal educational strategy in institutions of higher education, are noteably lacking in continuing education for nurses. Rather, materials and programs have a tendency to be developed according to more medically-derived, disease-oriented modalities with little emphasis on the social, cultural, environmental, or developmental aspects associated with illness. In fact, illness, the personal experience of dis-ease, is rarely a focus of continuing education. Further, it has been our experience, based on pre-project surveys, that many features of Alzheimer's disease, such as apraxias and aphasias which are usually associated with stroke, are unknown to acute care nurses. This serves as further evidence that they have configured nursing problems along disease-oriented, rather than conceptually-oriented, lines of thought. Thus, information which might be at their disposal for structuring and evaluating nursing care is compartmentalized by disease rather than concept (i.e., structural and behavioral alterations of cognitive impairment) and is relatively inaccessible. The modules which comprise these materials include: cognitive processing and cognitive assessment; psychotropic drug use; chronicity; social support; mobility/immobility; continence; alterations in nurtitional status; and continuity of care.

Cognitive processing and cognitive assessment. This segment focuses on alterations in cognitive processing and is considered the key element in structuring nursing services for demented older persons. Written materials and a videotape comprise this segment's materials. The videotape is a trigger tape, meant to capture audience attention and facilitate discussion regarding problems associated with differential diagnosis and the structuring of nursing care. The materials emphasize discrimination of age-related changes in cognition from alterations in cognitive response characteristic of Alzheimer's disease. Nurses are introduced to the use of structured tools to assess behaviors consistent with dementia (Blessed, 1967), acute confusion (Folstein, Folstein, and McHugh, 1975), depression/dementia (Sutherland, 1988), and depression (Beck, 1964). Because considerable debate exists regarding differentiation of depression from dementia, the controversy is reviewed and recommendations for nursing care provided. The obtaining of baseline and repeated assessments of individuals is encouraged.

Psychotropic drug use. The formal knowledge about neurotransmission and the biochemical basis of behavior has increased exponentially in the last decade. For nurses to understand the behavioral responses of demented persons, and assess effects of pharmacotherapeutic interventions, a knowledge of alterations in neurotransmission and anatomical structure characteristic of Alzheimer's disease is imperative. Psychotropic drug use is discussed within the overall framework of cognitive alterations associated with Alzheimer's disease. The use of psychotropic drugs within an overall program of behavioral remediation therapy is suggested. Identification of abnormal involuntary movements (dyskinesia) associated with protracted psychtropic drug ingestion is provided.

Chronicity. A major element in planning care for individuals with Alzheimer's disease is the development of a trajectory of cognitive declines and behavioral responses. Such mapping assists caregivers to make a difficult circumstance predictable in specific ways. Predictability is important for formal caregivers, such as nurses, since it allows planning, implementation, and evaluation of care. The behavioral and physical stages of one chronic illness, Alzheimer's disease, are pursued. Stages of caregiving, and strategies for intervention, follow discussion of the stages of Alzheimer's disease.

Social support. The social support segment is based on the needs of individuals and caregivers, both formal and informal, for attachment, social integration, opportunities for nurturance, reassurance of worth, sense of reliable alliance, and the obtaining of guidance. Specifically, the segment focuses on the issue of elder abuse and the need for individuals and caregivers to be attached to community-based referral agencies and services to avoid isolation in caregiving. Nurses, specifically emergency room nurses, are taught to assess systematically for any evidence of abuse or neglect of all elders. Adequacy of support, adaptive responses to stressful life events, and environmental resources are areas of caregiver assessment. Referral and liaison with community-based agencies serve as the framework for developing support interventions for informal caregivers and demented elders. Support group membership is encouraged and emphasized.

Mobility/immobility. Mobility, such as wandering behavior, is a significant problem associated with care of demented elders. Attendant safety and security issues include incidence of falls, accidents, and trauma as a result of wandering. Additionally, the contributions of visual and hearing problems, medications, and gait disturbances to falling are a focus of the segment. In the last stages of Alzheimer's disease, immobility becomes a focus of nursing concern. A related concept, iatrogenesis, serves as the focus for discussion of decubitus ulcer formation, pneumonia, urinary tract infection, and constipation.

Continence/incontinence. Preserving continent behavior serves as a focus for primary caregivers, as well as nurses regardless of the settings in which they work. In this module, nurses are taught to deal with physical and functional problems of toileting associated with dementing disorders. In particular, acute care nurses are encouraged to map incidents of incontinence in order to recognize patterns of continent behavior. Preserving continence in demented elders in acute care facilities contributes to maintenance of skin integrity, decreased incidence of urinary tract infection, and a decreased need for placement in longterm care facilities, once successful resolution of the acute episode of illness is effected.

Nutrition. Certain aspects of Alzheimer's disease lead to loss of recognition of utensils and loss of capacity for self-feeding. Structural changes in the central nervous system and the use of psychotropic medications also contribute to changes in hunger, thirst, and satiety. The focus on eating behavior requires caregiver knowledge of the abilities of individuals to initiate and carry out previously learned complex tasks, medications consumed, and the biological changes of Alzheimer's. Increasing attention to alterations in fluid and electrolyte balance, centrally-mediated problems such as apraxias, and drug therapy are emphasized. A 10% loss of body weight is a key indicator of potential protein calorie malnutrition. Daily weights are especially encouraged in individuals with dementing disorders.

Continuity of care. The foci of this segment, two videotapes and a written program guide, deal with two major elements of communication -- communication with the demented elder and communication within the organization about the demented elder. The former, communication with the demented elder, emphasizes the need for nurses to use therapeutic interaction with all older adults, but specifically with individuals with dementia. Again, the needs for structure, security, nurturance, and accountability on the part of individuals associated with caring for demented elders is emphasized. In the second segment, a videotape examines the organizational or institutional communication upon which successful continuity of care is predicated. Case management is suggested as one way in which continuity of care to demented elders can be assured.

References for this abstract and these modules are available upon request. The program guides, videotapes, slides, and major reference materials will be available, free of charge, to interested institutions on or about April 1, 1991, following completion of institutional assessment and evaluation. The intent of the project is to achieve the widest distribution and dissemination of these materials in order to contribute to enhanced expertise for practicing nurses in management of behavioral problems associated with Alzheimer's disease.

TITLE: **A UNIQUE TEACHING OPPORTUNITY: A SPECIALIZED FACILITY FOR PERSONS WITH ALZHEIMER'S DISEASE**

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The establishment of a facility exclusively for persons with Alzheimer's Disease has afforded a unique teaching opportunity. The merging of academia and the service sector can be a positive experience for all involved, promoting Alzheimer's competency through more effective educational programs and improved patient care. An affiliation agreement and joint appointments between a teaching institution and the nursing home promotes involvement and activity from both parties and provides for a successful program. Individuals, involved in the educational programs including staff, students, residents, and families, believe it to be a beneficial experience in which everyone wins.

The Alois Alzheimer Center, dedicated to the care and study of Alzheimer's Disease (AD), opened May 1, 1987, as the first specialized total facility of its kind in the United States. With an environment and programs designed to meet the specific needs of the cognitively impaired, the Center varies from traditional long term care in a variety of ways. Sloane, et. al., in a recent unpublished report entitled, "Specialized Dementia Units in Nursing Homes," states that: "It is apparent that these units differ from traditional settings. Differences were noted in all areas we studied - structure, administration, resident population, and provision of care." In traditional facilities, resources must be spread between focusing on the needs of the elderly with physical impairments and developing various programs to meet the needs of individuals with dementia. Therefore, in traditional long term care, staffing, training programs, recreation and activities, policies and procedures and environmental factors need to be developed to meet the very different needs of both populations. A total facility, such as the Alois Alzheimer Center, enables all facility resources to be channelled, focusing on one specific group, the cognitively impaired.

Education is an important component of the mission of the Alois Alzheimer Center. Educational programs have been developed to dispel the myths and fallacies that often surround this disease and to increase the community's level of awareness about Alzheimer's Disease. In addition, the educational program for students was developed to better prepare health care professionals in the future to work with persons with AD and to enable them to become more familiar and sensitive to the needs of individuals and families touched by this disease.

To encourage and enhance educational activity, a formal affiliation agreement between the teaching institution and the long term care facility was developed and has facilitated involvement by both parties. The agreement clearly defines goals and objectives so that the purpose of the relationship is understood. Specific roles and responsibilities are defined with responsible parties being identified by title, in order to facilitate an ongoing relationship not bound by a specific person or time. To enhance the activity defined by the affiliation agreement, an Advisory Board was developed. The Board meets on a routine basis to review joint activities and progress, and serves as means of developing additional mutually beneficial projects. A liaison, from each institution identified in the affiliation agreement, meet on a routine basis, as well, and are instrumental in facilitating communication and institutional involvement.

All parties need to be informed about the affiliation agreement and the educational mission, particularly the nursing home staff and participating students. Individuals involved are instructed upon their specific roles and the expectations in regard to the educational program. Staff need to be aware and prepared to work with students before the day of clinical practice, and a means of communicating this information needs to be in place. Staff and individual meetings, as well as, posting information on communication boards and in staff lounges, memos and departmental meetings, all serve as effective ways to reach the staff. Students doing lengthy rotations or projects are introduced to staff through departmental meetings and inservice programs that take place within the facility, on a weekly basis. Students are asked at that time to discuss their project, goals and objectives with the staff on all three shifts. The students attend the routine staff meetings that are held at 2:30, 9:30 and 11:30 pm.

Students involved in clinical rotations at the Center are afforded the opportunity for hands-on-experience that may not have otherwise been available during their training. For students, the clinical experience gives them an opportunity to "touch" this disease and to see and experience the various ways that this disease affects people. Students involved in this training learn about the development of a specialized facility and are taught how it differs from traditional long term care. Specific issues include: development of mission statements and philosophy, staff training, policy and procedural development, importance of individualized care planning, environmental design, cognitive assessments, behavioral management, activities and recreation, regulations and reimbursement, and life enhancement for persons with dementia.

Initially, the program included only graduate students and those who could spend several weeks or months with residents. However, it was discovered that students who experienced short clinical rotations received many benefits as well. All students, regardless of the amount of time spent at the Center, have a clinical experience which is structured differently for each student.

Faculty accompany students, and for many faculty members, it is one of their few exposures to AD and dementia. Although faculty have a broader base knowledge of AD, they are often surprised by the environment at the Center as well. Faculty are asked to prepare objectives before the clinical visit. Then the faculty and students are scheduled for a general orientation. Faculty evaluate the clinical experience and report that they find it very useful for students.

One faculty member reported: "The interaction of staff with patients was most helpful. Good to see 'theory in action.'" One nursing faculty stated: "The clinical experience was valuable for the students to increase their awareness of AD and the importance of the nursing care that they receive."

Depending upon past exposure, the students' rotation is sensitively planned not to overwhelm or scare students, but to support them and to make it a realistic and positive experience. Considering the student and the student's level of education and exposure in general to long term care, a program will be established to meet the needs of individual students. The length of student rotation varies and is dependent upon the student's objectives and past training.

The clinical experience for students is resident/staff oriented and centers around contact with residents and staff, not one that is task oriented. They spend all their time with individuals with dementia, not with daily task functions such as bed-making, water passing, etc. Students spend most of their time with nursing assistants and recreational/activity personnel to observe how the disease affects individual functioning. Students may be involved with residents who are baking, gardening, or going on an outing such as to the zoo, shopping at the mall or out for a boat ride. This helps students see that many individuals with dementia can do many enjoyable activities in life with supervision and guidance. This interaction gives students not only an opportunity to see that many abilities are still intact even at the moderate to severe stages but also gives students creative ways to enhance life for individuals with AD.

Students receive training in individualized programming and state of the art care which they can translate, replicate and use to set standards of their own. There is an emphasis on giving meaning to life for individuals with AD, through individualized programming that promotes a sense of accomplishment, belonging and self esteem. The information shared will also enable students to help others in the community and those in non-specialized areas with specific techniques and programs of care.

The educational program has had regional impact with undergraduate, graduate and Ph.D. candidates from surrounding states participating at the Center. Over 150 students from a variety of fields, such as psychology, health planning, administration, nursing, medicine, etc. have participated in this program. A review of the evaluations indicates that the experience has been very positive, with criticism surrounding the need for more clinical time. Despite the level of training, most students in their evaluations express their amazement about how the disease has affected people. They are astonished with the abilities maintained, as well, as the disabilities they observe. A fourth year medical student described a strength of the experience as, "Able to see AD patients in their day to day environment and how they were managed." The same student found a weakness to be, "Only that I wasn't able to spend more time and understand more about AD and the Center."

A clinical psychology student found strengths to be a, "clearer understanding of complexities of care and complexities of defining illness." Another student reported that she, "gained some understanding of the disease. I also recognized that these people are human beings and still have real feelings and needs." One nursing student stated: "I was able to go to the fire museum with them and saw how they are still human and act in public."

Research is another integral part of the Alois Alzheimer Center mission. Through the educational program, interest has been generated by students to examine specific characteristics, programs, interventions, etc. through research. By developing a greater understanding of the actual needs of this population and their families, the clinical exposure has assisted them in developing projects that are realistic and meaningful. Twelve research projects have been planned and are in various phases of completion as a result of the educational exposure.

The residents benefit through this educational program as well. They reap the benefits of additional attention from students who can spend time with the residents and who enjoy doing various recreational activities with them. The residents also benefit from the progressive environment and the newly founded knowledge the atmosphere brings.

The benefits for the long term care staff are numerous. The staff have an opportunity to share their experience and knowledge with the students who in turn share their learning with staff. The employees are proud of their work and get great satisfaction in contributing and being recognized for their expertise. They are respected by students and given a great deal of positive reinforcement for the work that they do. The nursing home staff have shared their enthusiasm and excitement about the opportunity to teach and learn from students. They enjoy the chance to contribute to student knowledge and find it rewarding to be viewed as an important resource. The staff demonstrates their interest by contributing to and participating in research and in suggesting research topics. These results suggest an interest in learning and the satisfaction of contributing. Potentially these additional incentives and interests generate greater job satisfaction, sense of accomplishment, esteem and overall, improved care for the residents.

EXAMINATION OF THE ROLE OF A HOSPITAL-BASED GERIATRIC PSYCHIATRIC UNIT FOR ENHANCING THE PROFESSIONAL PREPARATION OF SOCIAL WORKERS

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Background/Introduction

This past academic year the Landis Geriatric Psychiatric Center at Norton-Alliant Hospital in Louisville, Kentucky and the Kent School of Social Work of the University of Louisville collaborated on a new and innovative educational program. This program consisted of a MSSW student working at the Center in the role of a clinical social worker and as a participating member of the multidisciplinary team. The experience lasted for 15 weeks (600 total clinical contact hours). The practicum fulfilled one of the MSSW degree requirements and earned five academic credits out of the 34 required for the degree. More than 50 individual geriatric psychiatric cases were seen in the Center during the time of this field practicum. The purpose of this paper is to describe and review this new program and to offer a student's observations about its future possibilities as a ongoing educational opportunity for the professional preparation of social workers.

Description of Landis Center Geriatric Psychiatric Program

The Landis Center Geropsychiatric Program is designed to help patients over age 65 deal with medical, emotional, and interpersonal problems that occur with aging. The program utilizes a multidisciplinary approach involving: (1) sophisticated organic testing that reveal organic changes, (2) the determination of the patient's ability to care for themselves, and (3) help to families of patients in arranging for home care and support in addition to arranging for long-term health care.

The Center's multidisciplinary team includes: psychiatrists, psychologists, social workers, pastoral counselors, psychiatric nurses and aides, physical therapists, expressive therapists, registered dieticians, occupational therapists, and group activity therapists. This extensive team is sensitive to the unique problems facing the elderly in our society. Each member of the team can contribute to the overall well-being of the patient.

Multidisciplinary Patient Care

The multidisciplinary staff met daily to discuss patient issues. Weekly team meetings were held to discuss, implement, and review each patient's individual therapeutic issues and to revise treatment plans. Prior to the patient being admitted to the unit, general information is gathered by the Norton Psychiatric Admissions Department. Often the psychiatric social worker will make a pre-admission evaluation. Upon admission, the team begins the true assessment progress in order to best help the patient. In order to establish an individualized treatment plan, each discipline independently assessed the patient. After each of the evaluations was completed, assessments were presented to the team and a treatment plan was written.

Professional Staff

The Medical Director of the Landis Center is a psychiatrist who holds a joint position with the Psychiatry Department of Norton Hospital and the University of Louisville Medical School. The psychiatrist and psychiatry residents conduct a full evaluation of each patient's physical and mental and emotional status. The psychiatrists meet with patients and families daily to discuss patient issues.

The nursing staff consists of registered nurses who specialize in geriatric psychiatry, psychiatric nursing aids, and unit secretaries. The nursing staff provides 24-hour coverage, administers medications, monitors and assists patients with activities of daily living, provides group therapy with social services to patients and provides some social activities. The occupational therapists assess problems encountered in daily living and examines the patient's skills in home management, work, and leisure areas. The clinical psychologist, who also holds a joint hospital staff position at Norton Hospital and at the University of Louisville Medical School. The psychologist provides services in the areas of psychological assessment, individual therapy, and consultation to the staff. Assessments are aimed at determining how patients view themselves or their environment. Physical therapists evaluate each patient's ability to ambulate and their range of motion. The physical therapist develops an individualized plan for each patient, and patients are provided physical therapy daily. Pastoral counseling is nondenominational. Counseling focuses on the patient's religious beliefs and commitments and how the patient deals with individual life experiences, struggles, worries, or conflicts, and how religion serves as a patient's source of hope and comfort. A dietitian is available to provide education and counseling to meet each patient's nutritional needs. The pharmacy provides the educational information to the staff concerning various medication prescribed to patients. The pharmacy also provides educational seminars to patients so they can better understand the medications they are taking. The psychiatric social worker provides a variety of services to both the family and the patient including: pre-admission screening, interviews, and consults with the medical director; obtains a psychosocial history concerning events that contributed to hospitalization; provides counseling to individuals, spouses, and family; provides information regarding insurance coverage; provides discharge planning; and provides follow-up both to the patient and to the family by making home visits after discharge.

Other Students Training at the Center

Medical students and nursing students from the University of Louisville have a six-week psychiatry rotation at the Landis Center. During their rotation, they are involved in the evaluation and treatment of patients under the supervision of residents and staff physicians. Pastoral counseling graduate students from area seminaries having an interest in geriatrics complete a 20-hour a week practicum at the Center. The students provide both patient and family counseling. Occupational therapy undergraduate students from area programs who are interested in geriatrics complete a three-month field placement at the Center. These students are supervised by the occupational therapists and their University field instructor.

And finally, as reported in this paper, Masters Degree students from the University of Louisville's Kent School of Social Work, who are specializing in mental health and interested in geriatrics, may apply for a practicum at Norton Hospital. Social work students participate in a professional capacity. The student participates as a member of the multidisciplinary team, is given a case-load of patients and is responsible for the patient from the day of admission to discharge and patient follow up.

Kent School of Social Work Practicum Program

Candidates for the M.S.S.W. degree are expected to participate in two practicums, one in their first year and the other in their second year. The advanced field practicum is chosen through a process of consultation among the student, the student's faculty advisor, the prospective agency field instructor, and the Director of Field Instruction at the University. Students are interviewed for field practicums in much the same way one interviews for a position. Resumes are submitted, formal interviews occur, and the placement is to reflect the student's career goals and is to be related to the student's concentration and emphasis. The practicum is intended to give the student practical experience with various client populations, service delivery structures, methodologies, and professional issues confronting the profession today. Students are to incorporate the basic knowledge learned from previous courses and use these social work skills, values, and ethics to fit the agency setting and needs of the individual clients.

Role of the MSSW Practicum Student

1. to acquire fundamental knowledge of agency's philosophy and function, its legal or legislative base, policy determination, eligibility requirements, limitations and range of service.
2. to develop and understanding of policy-making procedures.
3. to acquire knowledge of personnel policies as they affect staff, student, and delivery of services.
4. to assess appropriateness of agency function to the client's needs.
5. to identify, develop, and utilize agency and community resources.
6. to become comfortable that the student represents the agency in an official capacity.
7. to participate in interagency and interdisciplinary programs.
8. to understand that the student is still in the role of a learner despite the operational simularities to the regular agency staff.
9. to abide by agency regulations and practices.
10. to demonstrate knowledge of human behavior and social issues and problems.
11. to understand the interpersonal dynamics of the agency.
12. to identify and work effectively with different client systems.
13. to assume appropriate leadership.
14. to link previously acquired knowledge to the present experiences.
15. to enlarge one's repertoire of skills.
16. to identify one's particular behavioral and interpersonal skills and enhance those particular skills.
17. to test and refine various types of communication skills.

Approach to Student Evaluation

The evaluation of student's performance is a semester-long process rather than an merely episodic review. Faculty/student field seminars allow the student to exchange ideas and discuss cases and problems with both the faculty advisor and fellow field students. In addition to faculty/student seminars, the agency supervisor provides two to three hours of direct supervision each week. The student is also able to seek advice whenever problems occur with clients. The evaluation process is an integral ongoing process of student performance. The assessment system is designed to: (1) assess each student's progress; (2) provide the University with information to serve as the basis for the student's grade; (3) enable the student to collaborate with the field instructor and faculty advisor regarding the student's performance; and (4) enable the faculty advisor, agency field instructor, and student to assess the student's performance as a guide for further teaching and learning opportunities.

The Evaluation Instrument

An Evaluation Form was developed to help assure that the major criteria for evaluation are clearly understood and are actually used during the evaluation process. The form asks for information in the following areas: (1) nature of the learning opportunties at the clinical site; (2) personal and professional value base--commitment to social work values and ethics; (3) proficiency in social work, community and agency activities; (4) proficiency in professional literature; and (5) professional growth, self-awareness, self-reliance, accountability, flexibility, creativity and maintaining professional relationships with clients (individuals, groups, organizations or communities). This includes the ability to handle one's own biases, to recognize causative factors of behavior and to utilize hostility, confrontation, and resistance by clients. Lastly, maintain confidentiality.

Analysis of Nature of Educational Experience

This clinical practicum provided graduate level social work students with a great deal of clinical social work experience. Among the benefits of MSSW student participation in this program were:

1. Had practical experience working with a multidisciplinary team.
2. Enjoyed practical experience in psychiatry and patient assessments.
3. Observed assessments in child psychiatry and adolescent psychiatry.
4. Had opportunity Ability to participate in psychiatry seminars.
5. Participated in a psychiatry residents course on human development.
6. Participated and observed therapy sessions in occupation therapy, expressive therapy, adolescent therapy, and family therapy.
7. Participated in weekly community patient meeting.
8. Conducted group sessions with residents using cartoons that deal with their personal situations.
9. Became more knowledgeable about the affects, benefits, use, and misuse of medications for the elderly.
10. Received extensive experience in discharge planning and utilization of community resources.
11. Gained knowledge of DSM criteria for diagnosis.
12. Obtained Knowledge of admissions criteria.
13. Acquired knowledge of family systems approach to family therapy.
14. Gained experience working with community agencies such as Seven Counties and the Council on Aging for pre-admission screening for psychiatric placement, adult protective services, VNA, Hospice, long-term care facilities, Jefferson County Disability Court (regarding guardianship).
15. Had opportunity to undertake clarification of social work skills, values, and ethics in working with patients and families.

By combining the experience gained from this placement when coupled with coursework in the M.S.S.W. Program, I am confident that this was an extraordinarily useful, interesting and effective practicum, one which would help any MSSW candidate to be an effective clinical geriatric social worker.

J.F.S.-7/90

II.

INNOVATIVE APPROACHES IN GERIATRIC EDUCATION: PART 3

Objectives:

1. Describe multidisciplinary clinical education programs in long term care facilities that address the differing needs of the individual disciplines involved.
2. Discuss an interdisciplinary approach to the teaching of clinical geriatrics to third year medical students.
3. Recognize the value of employing an external consultant and a retreat format in the process of developing an interdisciplinary team.

Authors:	Topic:
*Ann L. McCracken, RNC, PhD Patricia Calico, RN, PhD Robert Cluxton, PharmD Gregg Warshaw, MD University of Cincinnati	A Multidisciplinary Educational Initiative in Nursing Homes
*Carole Gardner, MD University of Kentucky VAMC, Lexington, KY	The Interdisciplinary Team Approach: Teaching Third Year Medical Students Geriatrics
*Kay Roberts, EdD, RNC *John C. Wright, MD University of Louisville Keith Knapp, MHA Christian Church Home Louisville, KY *Robert Cortellessa, OEC Hoffman & Associates Louisville, KY	Consultation & Seclusion as Team Building Strategies

*Denotes Presenter

A MULTIDISCIPLINARY EDUCATIONAL INITIATIVE IN NURSING HOMES

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This Special Initiative Project addresses both an educational need of health professions students, as well as, a community practice need. The primary purpose of the project is to advance the clinical education of health professions students by providing an educational program that addresses the quality of geriatric therapeutic drug prescribing in selected Intermediate Care Facilities (ICF) and Skilled Nursing Facilities (SNF) in the area served by the Southwest Ohio Area Health Education Center. This includes the prevention of drug therapy problems as well as the identification of problems and development of interventions for them. An interdisciplinary approach to these problems and their solutions is emphasized throughout the course. The goals of the program are to:

1. Provide health professions students an interdisciplinary conceptual framework to identify and analyze therapeutic drug therapy problems in the elderly and to develop interventions to help solve these problems.

2. Help health professions students gain knowledge about medication use in the elderly, including its implications for the larger community and society.

3. Help health professions students learn to use and appreciate an interdisciplinary approach to therapeutic drug interventions in the nursing home setting, experiencing an approach which respects and promotes the knowledge, resources and skills of all team members including the patient and family.

4. Provide health professionals in the sites selected an opportunity to participate in a teaching nursing home concept program whereby interdisciplinary health professions students, faculty and nursing home staff exchange knowledge, share expertise and generate enthusiasm toward promoting health and preventing disease associated with drug therapies of elderly persons in institutional long-term care settings.

The Special Initiatives Project is an Area Health Education Center (AHEC) activity, the Health Education Alliance through the University of Cincinnati (HEALTH-U.C.) is the Area Health Education Center (AHEC) for Region VI of the Ohio Statewide AHEC Program associated with the University of Cincinnati College of Medicine. HEALTH-U.C. was organized by the College of Medicine as an AHEC in 1974. The fundamental principle of the Southwestern Ohio AHEC is to operate an organization capable of identifying and responding to regional health care needs. Programs are developed which link the resources of the University of Cincinnati Medical Center with community resources to impact on the health care in the region. Education is an essential component of all programs. Three issues were addressed in order for the proposed educational program to be successfully implemented. These involved student recruitment, scheduling, and designing a curriculum appropriate for students at various educational levels in three different disciplines.

a. Student Recruitment

Academic schedules of students in the Colleges of Medicine, Nursing and Health, and Pharmacy are already quite full and it was difficult to recruit large numbers of students who had time to participate in this educational program. This problem was solved by incorporating the proposed program into, and making it a required part of, several different required and elective courses in the three Colleges.

b. Scheduling

Schedules of the three Colleges vary widely and the beginnings and ending dates of courses do not coincide with each other. Some courses run for 10 weeks while other educational experiences last for 4 weeks or 8 weeks. It would be nearly impossible to design a separate course which could fit into the schedules of students at different educational levels from the three Colleges. This problem, too was solved by making the proposed program a required part of several existing courses, with the length of each student's participation varying according to the schedule of the specific course in which the student is enrolled.

c. Curriculum Design

The final problem to be addressed was the development of an interdisciplinary program for students from three health professions and at various levels of training. The educational needs of the graduate level pharmacy and professions students and first year medical students for example are clearly diverse. This initiative overcomes this significant barrier to interdisciplinary training. By using a faculty team, composed of experienced teachers from each of the three core disciplines, we experienced considerable flexibility in the didactic assignments, as well as, the clinical tasks assigned at the nursing homes. Each faculty teacher tailored the learning objectives, readings, and assignments to the specific needs and abilities of students from their respective disciplines. Topics covered in year 01 included: psychotropic therapy, dementia therapy, cardiovascular therapy, pain control, infectious disease therapy, bowel and bladder therapy, dermatologic therapy, endocrine therapy, nutritional therapy, and polypharmacy. In year 02 polypharmacy and endocrine therapy were dropped from the syllabus. All topics were presented twice during the academic year.

All students participated in the on-site interdisciplinary patient therapeutic monitoring rounds. Each student's specific assignments and focus of learning depended on the year of training, discipline, and on the length of time they were participating in the program. For example, first year medical students learned about the roles of nursing and pharmacy in the therapeutic care of nursing home patients, as well as, basic pharmacology, while fourth year medical students examined patients and reviewed drug regimens. Undergraduate nursing students focused on the role of drug therapy in assisting or hindering adaptation of elderly persons to the aging process and common pathological conditions. Graduate gerontological nursing students focused on interdisciplinary team efforts and the assessment and use of innovative approaches to clinical gerontological problems and health concerns.

Typically students began their rotation by meeting with the faculty team at the site. The faculty selected patients for each student team to monitor. Patients selected were identified by faculty members or the facility's staff as having complex drug therapy, potentially ineffective therapy, or suspected of having drug toxicities. Advanced students (fourth year medical students and graduate nursing and pharmacy students) established and maintained a patient specific database to be used in presenting the patient to the team. For every assigned patient, students presented a verbal summation of past medical and drug history.

On the evaluations returned graduate nurses (GN) rated the Project highest overall and medical students (M) rated the projected the lowest on selected variables. Pharmacy students (P) and undergraduate nursing students (UN) rated the Project between the ratings of pharmacy and graduate nursing students. Mean results on specific variables were as follows on a 1 to 5 scale:

1. Relevance of case study to your discipline (1 = Not at all, 5 = Very Relevant)
   GN = 5, UN = 5, P = 4.4, M = 3.5

2. Quality of precepting (1 = Poor, 5 = Excellent)
   GN = 4.2, P = 4.2, UN = 4, M = 3.3

3. Impact of students of other disciplines on education (1 = Very Negative, 5 = Very Positive)
   GN = 4.6, P = 4.7, UN = 3.9, M = 2.8

4. Attitude Change (1 = More Negative, 5 = More Positive)
   GN = 4.6, P = 4.6, UN = 4.0 M = 3.3

5. Overall quality of learning experience (1 = Poor, 5 = Excellent)
   GN = 4.6, UN = 4.6, P = 4.4, M = 2.1

Following two years of funding, outside resources will no longer be available. Faculty involved in this special initiative will continue the program, on a less frequent basis on the coming year. The project has been stimulating to faculty, as well as, to students. Presently faculty are writing a new multidisciplinary education grant to explore a new area for multidisciplinary cooperation and learning.

The Interdisciplinary Team Approach: Teaching Third Year Medical Students Clinical Geriatrics

Carole S. Gardner, M.D.
University of Kentucky

The interdisciplinary team approach is used at the University of Kentucky to teach clinical geriatrics to third year medical students. This concept was first developed in 1987 with the institution of a one-week introductory experience for students beginning their clinical education. It occurred immediately before they started required rotations on services such as Medicine and Surgery. All members of the third year class were assigned to a combined experience in issues regarding elderly patients and patients with cancer. Different sites such as the outpatient clinics provided students with exposure to the concept of the team approach to care. The idea of stressing attention to social, emotional, and other problems rather than concentration on only the medical aspects of care was successful and well-received by students. However, it was very difficult to provide continuity during a short combined rotation. It was decided to change the rotation for the following year to give half the students exposure to geriatrics. The other half worked with patients with cancer. That course was given four times over four weeks in August, 1988. Because of its success, that format was repeated during four weeks in August, 1989 and is described in greater detail in this paper.

The curriculum for the course evolved from the earlier experiences of 1987 and 1988 and was developed by a geriatric interdisciplinary team, including nurse, pharmacist, and social worker, with two Department of Medicine faculty geriatricians and an education advisor. Specific course objectives were developed. On completion of the rotation, students were expected to: describe differences between acute care and chronic disease management; explain the importance of the team approach; describe the roles of team members; discuss societal impacts of diseases; and discuss involvement of patients, families, and community resources in care plans.

The medical students were divided into two groups, "Geriatrics" and "Cancer", by the Office of Education. Forty-two students took the Geriatrics course as one component of a four-week introduction to clinical medicine at the beginning of their third year. Approximately ten students were present each week for the week-long course, which was repeated over four consecutive weeks.

Each Monday morning, the students met in a conference room and were given packets including course objectives and brief guidelines for the week. These included suggestions for appropriate dress in the clinical setting, as students in previous years had appeared in extremely casual attire. Students also received a set of articles and handouts including information about interdisciplinary teams, geriatric and functional assessment, and medications in the elderly. They were informed that their evaluations would be based upon their ability to relay knowledge of this information to various professionals throughout the week as well as to one of the faculty geriatricians during a brief discussion at the end of the week.

The rest of the morning was spent in an introductory session to basic issues in geriatrics. One faculty geriatrician incorporated case presentations into a session on normal aging changes, illustrating the complicated issues in dealing with elderly patients and the need for comprehensive assessment and management. Then the interdisciplinary team members, including the other faculty geriatrician, nurse, social worker, and pharmacist, discussed the development of the interdisciplinary team approach, its benefits and potential problems, and described their individual roles on the team.

The nurse discussed her role in making in-home assessments and the importance of home visits. The social worker described financial, emotional, and cognitive concerns in dealing with the elderly. As the pharmacist described her role in patient assessment and management, she briefly discussed the importance of thorough medication histories and potential drug interactions. She provided suggestions for optimizing medications.

Students were divided randomly into five groups and assigned to different clinical sites, which were chosen for their use of the interdisciplinary team approach. Students were given site-specific schedules for the remainder of the week. A designated coordinator at each site was responsible for supervising students and scheduling activities to expose them to different aspects of patient care, caregiver needs, and the interdisciplinary team approach. Because coordinators included a nurse and a physician assistant, the role of other health professionals in care of the elderly was emphasized. Clinical sites included the University of Kentucky Clinical Geriatrics Program; the Veterans Affairs Medical Center Geriatric Program; a rehabilitation facility affiliated with the University of Kentucky; the University Family Practice geriatrics team; and the University Memory Disorders Clinic.

Activities at the University Clinical Geriatrics Program included Geriatric Evaluation and Continuing Care Clinics, providing experience in working with ambulatory patients; home visits with an interdisciplinary team to provide education and support to patients and caregivers; interdisciplinary team meetings to discuss care of those patients; and a visit to a university-affiliated nursing home for rounds with one of the faculty geriatricians. At the Veterans Affairs Medical Center, experiences included the Geriatric Evaluation and Continuing Care Clinics and assessment and management of eleven elderly inpatients in the Geriatric Evaluation, Rehabilitation and Continuing Care Units, supervised by a faculty geriatrician. Students attended interdisciplinary team meetings at which patient care was discussed. The rehabilitation facility provided exposure to issues of chronic care, special problems such as stroke management, and exposure to the interdisciplinary team approach to care in a specialized setting. The University Family Practice geriatrics team, including a faculty physician and physician assistant, provided the students with opportunities to make home visits and included experience at two different long term care facilities, with interdisciplinary care planning sessions. At the University Memory Disorders Clinic, students learned about the special problems of dealing with patients with dementia and the roles of caregivers, community support, and other resources. In addition to seeing outpatients in the clinic, they visited the respite care program for demented patients and made home visits to selected patients. At each site, didactic sessions about various topics in geriatrics were incorporated into the clinical activities schedule.

Students worked with site coordinators at each site until Friday. On Friday morning, they were given time to complete their reading assignments and other responsibilities to fulfill the course objectives. On Friday afternoon, they attended the regularly scheduled Geriatrics Interdisciplinary Teaching Conference, which provided didactic sessions on topics such as dementia and depression. Students were then divided into two groups. Each faculty geriatrician led discussions about the week. Each student was expected to present a five-minute overview of his experience during the week, demonstrating knowledge of the course objectives. In earlier years, it was suggested that students focus on particular patients, but due to the interdisciplinary emphasis of the course and the various experiences, discussions about specific patients were not as meaningful as discussions of the entire experience, except for cases in which the patient illustrated the complicated nature of geriatric medicine.

The final group discussions also provided the instructors with information about various sites. If problems were identified, attempts were made to correct them before the next students' rotation. Such problems, which were rare, included unanticipated staff absences.

Students were evaluated by each site coordinator using standard University of Kentucky forms, including assessment of the students' knowledge and interpersonal skills. These were submitted to the course coordinator for a final grade of Pass or Fail for the experience. Each student received a Pass.

In addition to commenting at group discussions, students completed anonymous course evaluations. These revealed that they found the experience helpful in understanding the interdisciplinary team approach and in recognizing the special problems and needs of elderly patients. All students stated that they found the rotation effective and recommended that it be offered in the future. Thirty-four rated it as excellent; eight rated it as good.

Because the students stated that this course was effective and instructors felt that all students fulfilled the course objectives, it seems that this approach is successful in teaching clinical geriatrics to third year medical students. It provides a model for incorporating knowledge about geriatrics and the roles of other health professionals into an introduction to clinical medicine. The concepts stressed in this course provide an important foundation for students prior to more intensive clinical assignments in caring for elderly patients in various settings.

Consultation and Seclusion as Team Building Strategies

Kay Thompson Roberts, Ed.D., R.N.,C., Chair; Robert E. Cortellessa, D.Ed, Process Consultant; Keith Knapp, M.H.A., Acting Director; and John C. Wright, M.D., Past-Chair

Life Span, Inc., and The Quantum Group, A Division of Hoffman and Associates, Inc., Louisville, KY

Life Span

Life Span is a teaching gerontological community that strives to be a center of excellence that serves as a major resource in the field of aging. The mission of Life Span is to maximize the quality of life in our aging society by forming and nurturing effective partnerships among educators, providers and recipients of health care, other services, and the community. These partnerships will attract, educate, and retain professionals committed to the continuum of care of older adults through creative interdisciplinary programs.

History of the Program

Mutual Goals in Existing Relationships. Life Span evolved from a longstanding desire on the part of administrators of Christian Church Homes of Ky., Inc. (CCHK), to help educate students from varying disciplines about aging and long-term educational institutions. CCHK had served as a learning site for students from Kent School of Social Work in the early 1970s and the School of Nursing since 1979. In 1982, Kim William, administrator, Christian Health Center, and Doctors John Wright and Kenneth Holtzapple, UL Department of Family Practice, and Robert White, executive vice president of CCHK, first discussed the possibility of the establishment of a teaching nursing home (TNH) the same year medical students were placed at the Center. A resolution approving formal exploration of a TNH was passed at a board meeting of CCHK November 8, 1984. In 1985, Dr. Daniel Gilbert joined CCHK as president and gave enthusiastic impetus for the endeavor.

The TNH Initiative. Formal activities toward a TNH began in 1987 when Dr. John Wright, Department of Family Practice, in cooperation with Dr. Daniel Gilbert, CCHK President, and Mr. Robert White, CCHD Executive, called a meeting to begin development of the program. A group of approximately 15 interdisciplinary faculty from UL and administrators and providers from CCHK formed the initial group.

Expansion of the Concept. Early on, the program began to take a more expansive stance than the traditional TNH. The planning group (the Council) recognized that if the program was to truly meet the needs of the older population, services must reach beyond the walls of the nursing home and provide preventive as well as restorative care. This broader view resulted in the need to make composition of the Council more representative of the broader Louisville area and surrounding community and include other sectors of the health care delivery system and other ecumenical, not-for-profit providers. Adoption of the name, Life Span, represented the Council's awareness that programs must be directed to all age groups if a significant change in the experience of aging is to be achieved.

Expansion of Governance Structure and Participants. Members of the Council recruited a board of directors to serve as a governance body and advocates for the program. Endowment funds obtained for the program were earmarked for management by an independent organization, the Louisville Community Foundation. An acting director was appointed to facilitate implementation of program activities. In 1989, membership on the Council (the group charged with planning, developing, and monitoring the day-to-day activities of the program) was expanded. Individuals from Spalding University, Bellarmine College, and Kentuckiana Metroversity, Jewish Hospital, and other community providers and consumers were added to a now 25-member Council.

The Need for Team Building

A Team That Was Not a Team. Expansion of Council membership, along with attrition of members, resulted in essentially a new council that could not truly be called a team. Participation in the program varied from only a few months to several years. Apart from members who constituted the original group, members did not know each other personally or professionally. The original mission statement was no longer appropriate, and the Council had not clearly identified the new mission. Individual perceptions of what Life Span should be varied. Yet, there was no time to communicate and discuss these varying perceptions in routine, monthly, 2-hour meetings. Decisions related to Life Span activities were often stalled as members sought with earnestness to clarify ideas and to understand each other.

Decision to Act. It became clear that if Life Span was to move forward with speed and efficiency, there was a need for the group to have an extended period of time for communication, clarification of the vision of Life Span, and commitment as a team to a common vision. The sincerity and strong motivation of this diverse group to make Life Span a successful venture led to the decision to act. The group voted to commit 2 full days of their time to a strategic planning retreat.

Pre-Retreat Planning

Purposes of the Retreat. Purposes of the retreat were to (a) facilitate development of a group identity as a team; (b) develop a mission statement, goals, and strategies and an action plan; and (c) gain commitment by individuals to the plan.

Selection of a Site. Criteria for a site that would facilitate the accomplishment of these goals were that the setting should be one that would facilitate communication, reflection, critical thinking, and caring and provide seclusion from the demands of usual activities. The Catherine Spalding Retreat Center at Nazareth, Kentucky was selected.

External Process Consultant. An external process consultant was chosen for two reasons: (a) There was a need to have an individual separate from the Council who could facilitate communication apart from Council members' personal agendas. (b) The importance of the success of the retreat to the vitality of Life Span underscored the need for an expert in the art of team building who would bring knowledge, creativity, flexibility, informed risk taking, and competency in strategic planning to the task.

Cueing of the Leadership. Pre-retreat planning with the leadership of the Council was critical to success of the endeavor. The consultant met with officers of the Council on two occasions to clarify outcomes, objectives, and activities planned for the retreat. Meetings with all of the officers, rather than selected leaders, was chosen to increase the likelihood that a multiple view of key outcomes would emerge, and preclude and divert individual posturing. The pre-work was a critical time for trust building.

Cueing of Council Members. Council members were asked to prepare in advance by developing and bringing a mission statement and goals to the retreat. The purpose was to clarify thinking and to accomplish a shift in mental preparedness. Members were also asked to read selected documents that explained past actions of the Council.

Retreat Activities

Structure of Meetings. Because a consensus of the vision of Life Span was desired, members met as a total group at all planned activities. Time was devoted to help members know each other personally and an atmosphere that encouraged free expression was set by the leadership. Activities were intense with meetings spanning a 10- and 8-hour interval (Days 1 and 2, respectively).

Group Strategies. Three strategies were particularly effective in facilitating achievement of the goals of the retreat: (a) clarification and meeting of individual expectations, (b) the use of art and drawing, and (c) public vote.

Clarification of Expectations. Solicitation and clarification of expectations was an effective strategy used by the consultant throughout the process. This helped persons clarify personal expectations and agendas and to feel their needs were valued. The expectations often guided group activities. When expectations were inappropriate, the consultant helped participants refocus.

Art, Drawing, and Design. The use of art and drawing by the consultant to express ideas that emerged captured the attention of all participants in a nonthreatening way. It literally provided a visual perspective of the flow of events, relationships, and emerging systems design and helped to identify priorities as well as to negotiate differences.

Public Vote. This technique asked participants to express agreement or disagreement with an issue or decision through saying publically either yes or no. Public vote is a method of surfacing differing opinions and the degree of commitment to an issue. Success of this method is time-dependent. Because it establishes a structure for people who are not fully committed to an idea to be "found out," it must be used sensitively. Used too early, the technique can drive participants away from each other rather than toward each other. Allowing someone to openly disagree can endanger that person to exclusion by the group. The technique was used near the end of the retreat after trust had been established among participants and when the group was nearing consensus. It surfaced agendas that had not been addressed and allowed participants to continue diaglogue that resulted in outcomes that could be embraced enthusiastically by all members.

Outcomes of the Strategic Planning Retreat

One hundred percent of the participants left the retreat feeling energized and good about their time spent, as well as owning a piece of Life Span. A clear mission statement, objectives, a list of potential strategies, and a beginning action plan were written and accepted.

Factors Influencing Success of the Retreat

Evaluations by members identified a combination of factors that were responsible for success of the retreat: timing in relation to readiness of the group; strong motivation and commitment of the group to Life Span; conduciveness of the site to reflection and communication; leadership of officers; pre-planning; an external process consultant; creativity and skill of the consultant; and the meeting of participants' expectations.

III.

FACULTY DEVELOPMENT MODELS: PART 1

Objectives:

1. Outline effective uses of interactive videodisc technology as an instructional tool.
2. Identify potential uses of interactive videodisc technology.

Authors:

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*Eric E. Spohn, DDS
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Topic:

The Use of Interactive Videodisc Technology for Teaching/Training

*Denotes Presenter

THE USE OF INTERACTIVE MULTIMEDIA FOR TEACHING/TRAINING HEALTH PROFESSIONALS

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Introduction

The interactive multimedia teaching technology we are going to discuss has had at least 8-10 years of research behind its development. This presentation is not a research piece to support interactive multimedia technology. It is, however, a demonstration of some of the development efforts in progress at the Univesity of Kentucky. The body of research is sizable. Although the preponderance of it comes from disciplines outside of healthcare, it is most certainly as applicable to geriatric education as it is to the other health care disciplines. Initially this technology was used in an industrial setting; however, it has slowly moved into vocational elementary, high school and now higher education settings.

What is Interactive Multimedia Technology?

Interactive Multimedia Technology is a computer based system which allows the presentation of visual and audio information to the learner, while taking advantage of the power of the computer to facilitate interactivity between the learner and the knowledge base. In addition, many administrative and student services are usually available within interactive computer authoring programs. The visual information can include full motion video from sources such as a videotape, videodisc or today a compact disc. In addition to full motion video, thousands of high quality still frame visual images are available from laser, compact or floppy computer discs.

What makes this all possible?

Digitization of visual and graphic data is the key to this technology. A fax machine digitizes graphic and printed data and allows it to be transmitted as a series of ones and zeros over a telephone line or through the air as microwaves to another fax machine which converts it back to a visual image or printed material. Similarly some of the images and sounds you will see and hear today have been digitized and are stored as a piece of data on a floppy disk or the hard drive of the computer. Storage of this data has been a problem in the past; however the compact disk has been the break through in the storage of digital data so that it can be randomly recovered in a fraction of a second. Although digital sound has been around for several years, digital video is relatively new on the scene. In fact this is spawning the production of a new generation of "multi syncronous" monitors capable of displaying video images from either television or computer sources. The Canon Zap Shot still camera is an example of the consumer end of this technology. It allows you to take a snap shot, which is stored on a small 2" floppy disk and you can display through a converter on your television.

Why use Interactive Multimedia Technology (IMT)

This technology allows the teacher to provide a much more customized learning situation for each student than is ever possible in a classroom with the typical lecture setting. (Technology supported lectures may make this statement less valid in the future.) IMT allows for very detailed development of self instructional teaching materials. This computer technology enables the instructor to develop feedback for correct or wrong answers, and provides for remediation loops for students who are having difficulty with the material. The ability to "branch" or "bridge" to other related subject matter is unique to this form of information technology.

There are multiple sound tracks available, which enables the creation of multilingual applications of the instructional materials. These additional sound tracks also allow the development of alternative "paths" through the training material to match the ability of the learner. Therefore, the same images may be used for training a dentist, a hygienist or an assistant, and the audio can be designed accordingly.

When should Interactive Multimedia Technology be used?

This technology is best used when: (1) there are multiple students taking material which does not change frequently over a five year period or more, i.e., the material is relatively static; (2) the material to be learned is quite visual in nature and requires many high quality images; (3) there is the need to combine motion video or slide quality images with computer generated graphic overlays; (4) the same information needs to be taught to students in different languages; (5) and repetition is required for student learning, for example in situations where remediation is necessary in order for the student to master material.

Who should develop Multimedia Technology?

Because of the relatively high cost of laserdisc production there is a critical mass of programs (5, 10, 50) to make the multimedia development process cost effective. In our opinion, IVD technology requires the consortium approach to development. However, recently lower cost methods to capture both video and audio data have become available and may allow costs to decrease to a point where the critical mass or consortium size may be reduced.

Who is involved in the production of interactive multimedia programs?

The personnel to produce an interactive multimedia program include an instructional designer (with IVD or similar experience) subject matter expert, video production crew, graphics artist (with computer graphics experience), and a program author (NOT necessarily a computer programmer).

How is an interactive multimedia program developed?

Planning is the key element to the successful development of an interactive multimedia program. Decisions have to be made about hardware and software (authoring programs). Unfortunately, These decisions are often in someone else's hands such as an administrator.

It is essential to decide what content is to be taught, what the objectives are, how the information is to be presented, and how outcomes are to be measured. In addition to design, production, and programming (authoring) processes, there is the beta or field testing process which is required to debug the program. The key player to oversee all of this process is a person with training in interactive instructional design. Initially we did not have such a person. However, we were fortunate enough to receive the services of Mr. Tony DeLucia, who was made available to us by IBM. He assisted us in the development of the IVD programs which you will see today. Dr. David Hardison initially functioned as the subject matter expert, but he has now evolved into our resident interactive multimedia designer and program author.

The following information relates to our IVD Program entitled: "The Anatomical Features of Permanent Teeth IVD Program"

This multimedia program is designed and developed around 5 major components.

1. Precourse Tutorial - This part of the program familiarizes the student with the computer and its various features. The student learns how the "touch screen" works; how to move forward and backward (for review or reinforcement through the program; and how to access various features such as the "audio and visual" glossary or placement of a "bookmark" in the course so that he/she may return to a particular course location at a later time. The student is able to practice using the keyboard and touch screen if they have not used this type of computer assisted program previously.

2. Pre-test - The student is given a short quiz to assess his/her present knowledge of the material prior to taking the course. Questions are randomly selected from a test item pool that represent the various parts of the course content.

3. Instructional Set - A full motion (with sound) video segment showing a dentist and dental auxiliary in a clinical setting gives the student an opportunity to see how this course information on dental morphology is relevant to dental practice. The characters are discussing various aspects of patient treatment using the dental nomenclature to be taught in this course.

4. Course Content - This program presents the anatomical features of the permanent dentition and the information is organized into four topics: (1) Surfaces; (2) Proximal Spaces; (3)

Divisions; and (4) External Features. The student may select anyone of these topics from the main course menu and then explore the subject at his/her own pace. Within each topic the material is organized from simple to complex. The student interacts with the course content by touching the screen to move ahead or backwards for review. Exercises are provided periodically during the course presentation to test the student's acquisition of knowledge and to provide feedback to the student about his/her progress.

5. Self - Assessment. Prior to exiting the course the student takes a self assessment quiz. Twenty randomly selected test items are used to evaluate the student's knowledge of the course material. Feedback is provided in terms of the number of items which the student responded to correctly. Recommendations for further study may be programmed to give the student feedback on what material he/she needs to address in particular.

6. Student Services - This program was authored using IBM's Learning System 1 (LS1) software. This software provides three levels of student services. The first level helps the student to better understand course content. The student can access "help routine", a glossary (audio and visual entries can be provided) or a course map to show the student where he/she is relative to other parts of the course. The second level of student services gives the student control over his/her movement through the course. Options include: (1) repeating a segment; (2) recent menu return; (3) set a bookmark; (4) return to bookmark; (5) videodisc controls; (6) go to end of video and wait; (7) go to end of video and continue; (8) replay video; (9) hide an overlaying panel; (10) resume the course and; (11) sign off the course. The third level of student services enables the student to communicate with the instructor about a problem or question in the program. The student can record questions or type in comments for the instructor to access at a later time.

7. Administrative Services - The instructor has some very powerful student data collection services available in the LS-1 software, which allows data gathering on the student's progress through the course, performance on quizzes or exercises, and the course's effectiveness. The instructor can monitor student sign on, sign off, course completion, time per module or section, total course time, menu selections, path through the course, test sign on/off, total test time, weighted and total test scores. For individual test questions the instructor can collect data on: (1) response; (2) score for each; (3) response as entered; (4) time for each question; and (5) number of attempts.

This Health Sciences Communication Association award-winning program has been tested by faculty and students in dental and dental hygiene programs. We hope that it can help you in your efforts to educate your students.

The down side of this technology is cost.

The costs in equipment, time, and manpower to produce an interactive multimedia program vary greatly. Much will depend upon the television production and personal computer resources which you have to begin with. The costs to adapt existing computers to AVC and M-motion configurations are relatively modest (about $2,000 - $2,500 per computer). The other variables will be affected by the scope of the program, complexity of the program material you wish to produce and the production values you wish to attain.

The upside of this technology.

The upside is a program which is highly effective in conveying the information you wish the student to learn and understand. We are well into the information age and the technology is improving daily. Students are arriving at college with different expectations regarding technology. We are a visually oriented society and likely to become more so. It seems imperative that higher education follow the leadership of industry in adapting our traditional teaching material to the technology of the information age.

INTERACTIVE MEDIA GLOSSARY

Basic Definitions:

1. **IVD = Interactive Video Disc**

   A computer based technology which allows visual images (full motion or still frame), audio 2-4 tracks from a videodisc player to be presented on a computer screen. The videodisc player is an input device into the computer.

2. **AVC = Audio Visual Connection**$^{(R)}$

   An IBM patented hardware and software package which allows a basic computer to be altered so that still frame video images and sound can be played through the system. It also allows computer graphics to be combined with the images. (Available January 1990)

3. **M-Motion Card**$^{(R)}$

   An IBM card which allows full motion video (i.e., from laser disc or other video source) to be displayed on a basic computer and combined with the computer generated graphics. (Available April 1990)

4. **CDI - Compact Disc Interactive**

   A technology which allows visual images (still and full motion) and sound from a compact disc player to be presented over a personal computer. The compact disc player serves as an input device to the computer.

5. **Database**

   A collection of facts, numbers, and statistics which are stored on a hard or floppy disk and available for use (analysis, etc.) by a computer.

6. **Audio/Visual Database**

   A collection of sounds and still and full motion images pertaining to a specific subject or discipline which are digitized and stored on a medium such as a laser disk, compact disk or computer floppy or hard disk.

7. **Digitize**

   The process of taking an image or sound and converting it to a series of ones and zeros which can be interpreted and stored in a computer's memory and then recalled and manipulated.

8. **Bit**

   A part of a binary language which is analogous to the letters in our alphabet or the alphabet of the binary language. Eight bits equal one byte.

9. **Byte**

   A sequence of bits operated on as a unit. This would be equalivant to words in our language.

10. **Megabyte**

    Equalivant to one million twenty-four thousand (1,024,000) bytes.

11. **Gigabytes**

    Equalivant to one thounsand megabytes or one billion bytes.

BD123

III.

FACULTY DEVELOPMENT MODELS: PART 2

Objectives:

1. Recognize the role that interactive television systems provide for off-campus distance learning opportunities for baccalaureate students.
2. Apply computer assisted learning (CAL) in a variety of educational settings.

Authors:	**Topic:**
*Phyllis Irvine, PhD, RN Ball State University	Preparing Baccalaureate Nurses Through Distance Learning: A Resource for Geriatric Clinical Practice
*Richard Druckenbrod, PharmD Robert J. Cluxton, Jr., PharmD, MBA University of Cincinnati	Developing Computer-Assisted Learning Programs for Teaching Geriatric Therapeutics

*Denotes Presenter

PREPARING BACCALAUREATE NURSES THROUGH DISTANCE LEARNING: A RESOURCE FOR GERIATRIC CLINICAL PRACTICE

Phyllis Irvine, Ph.D., R.N.
Ball State University

This paper will describe the distance learning program at Ball State University (BSU) that provides registered nurses an opportunity to earn baccalaureate degrees in nursing. It is projected that BSN practitioners, having a broader base in liberal arts and nursing, will be better prepared to address the health care needs of an aging American population.

Let's review the educational options that serve as pathways for registration as a nurse. A hospital-based school granting a diploma or certificate has been the traditional avenue for training nurses. These three year programs have declined at a significant rate as nursing education has moved into the realm of higher education. Another route is the two year associate degree in nursing (ADN) program that usually is housed in a junior or community college. The third avenue is the four year baccalaureate degree in nursing (BSN) program based in the university setting. After completing the selected educational program, all must pass the national nursing licensure examination. A state board of nursing then grants a license and the legal title of registered nurse to the individual.

RN/BSN Completion Program

What mobility options are available for the graduate of the diploma or associate degree program? How can the registered nurse (RN) attain a baccalaureate degree? Flexible articulation programs have been developed for the RN student. Yet many of these approaches require that the non-traditional student come to campus. Such students maybe older, married, full-time employees who cannot leave job, home, or family.

Ball State University School of Nursing offers its baccalaureate degree in nursing courses via interactive television for registered nurses who have nursing diplomas or associate degrees. The BSU campus has two broadcast- quality studio/classrooms. While a "live" class is being taught, the content is beamed to multiple sites. At this point in time, outreach is provided to hospitals in Fort Wayne, Bloomington, Indianapolis, and Anderson. Expansion is planned for Madison and Gary in 1990. Almost 500 students are enrolled in this program. Most attend school on a part-time basis. Some time on campus is required for computer applications and physical assessment evaluations. However, the overwhelming majority of the student's time is off-campus.

Four nursing courses (NUR 309, 410, 411, 417) must be taken in sequence. All are offered by television. Nursing 320 and 322 can be taken without sequencing. The student may "test out" of NUR 320 (Pharmacotherapeutics) or enroll on campus. NUR 322 is a research course taught on television. Nursing courses are taught in the late afternoon and early morning to reach a range of students. BSU faculty provide on-site clinical supervision for some courses, such as community health nursing. Preceptors are used to supervise learning experiences in the management course. In addition to the upper division nursing courses, general education courses and electives may be taken by television or transferred to BSU from other academic institutions.

The nursing curriculum contains gerontological content to increase the knowledge of practitioners about the needs of elders. For example, the physical assessment course includes information about normal physiologic changes of aging. Students learn to evaluate the functional abilities of elderly clients. Assessment data are used to plan appropriate nursing interventions. Evaluative sources include anthropometric methods, biochemical and hematologic measures, polypharmacy checks, and environmental factors.

Nursing faculty are paid to attend a ten-week "prep" experience in the summer prior to being assigned to teach in the completion program. Each faculty member is paired with a production manager who gives advice and assistance with graphics, text, and other logistical matters. Extra money ($1600-$4000) is used as a faculty incentive. Most faculty note that this experience actually improves lecture organization and delivery in all classes, not just those given by television.

Students have evaluated both course content, program delivery, and attitudes toward televised instruction. Evaluative criteria have been separated into these areas to ascertain the technological impact. Good reception of the televised signals is a must. Poor reception yields critical components from students. An on-site coordinator, who may be employed part-time, is helpful to set up the room, monitor tests, and handle logistical problems.

IHETS

The Indiana Higher Education Telecommunication System (IHETS) was developed in 1967 by the Indiana General Assembly to help the state's colleges and universities share educational resources. Emphasis will be given in this paper to the IHETS Television Network. It should be noted that the most extensive aspect of IHETS' services is the State Universities Voice Network (SUVON), a telephone network connecting 75 centers and campus locations of

Ball State, Indiana, Indiana State, Purdue, Southern Indiana and Vincennes Universities, Indiana Vocational Technical College system, and the independent colleges and universities. SUVON also can be used for slow-speed computer data and facsimile transmissions. In addition, the IHETS Conference Network (ICON) links groups as well as individuals for telephone conferences.

IHETS Television Network

This system, used to transmit credit and non-credit courses, serves locations in 51 cities: 44 campuses, 56 hospitals, 18 cooperative extension service centers, 39 industries, 8 public schools, and 5 public broadcasting areas. Programs can be originated on the Network from any of five cities -- Bloomington, Indianapolis, Muncie, Terre Haute, and West Lafayette. The student talkback system augments the flexibility and utility of the system for educational purposes.

One of the major roles of the closed-circuit, statewide IHETS Television Network is making higher education more accessible to the people of Indiana. Accelerating growth in the past 20 years has brought network service to 170 locations throughout the state. The universities' plans call for service to a minimum of one location in each of Indiana's 92 counties by 1990.

Interactive Component

From its inception IHETS has been one-way video and two-way audio. Since video tapes can be delivered by alternate methods if necessary, 80 percent of network-delivered classes are transmitted "live" with talkback. Interaction has been deemed critical by both professors and students.

The present talkback system, called Dial Teleresponse (DTR), uses SUVON or commercial long-distance telephone carriers. A student may ask or answer a question just by pushing a button. The DTR system automatically dials the correct originating studio while muting the classroom television set to eliminate feedback squeal. The student's question can be heard at all receiving locations for the class.

Transmission Facilities

IHETS video transmission uses broadcast-quality fiber optic channels leased from the Indiana Telecommunications Network (INTELLENET) for the core intercity service. Any three of the five possible originators can transmit programming at once. IHETS multiplexes two of the three leased channels to provide video signals. A state-of-the-art digital switching system then routes the outbound signals to fourteen university campuses at strategic locations around the state.

At these fourteen centers, demultiplexing equipment separates and reconstructs the signals, then retransmits them to other locations using Instructional Television Fixed Service (ITFS). Reserved by the Federal Communications Commission for education, the ITFS channels operate at frequencies which are not directly receivable on home television sets. Special antennas at authorized locations receive the signals and convert them to channels which can be tuned on a standard television set.

However, ITFS differs from other forms of television in several ways. The following are the most significant:

1. Point-to-point radiated transmission
2. Low power
3. Line of sight transmission
4. Restricted coverage area
5. Interactive capability
6. Multichannel capability (Arnold, 1989)

IHETS was operates 84 of these ITFS channels (plus a number used for studio-to-transmitter links) in more than 20 cities. All transmitters are automated for remote operations from Network Control. It is expected that transmitters in 25 cities will provide four television channels each by next year.

Summary

The BSU School of Nursing, as an academic unit, is typifying the mission of the parent institution. In addition, the School is responding to consumer demands for student access. Lastly, the School of Nursing is helping to meet the need for an increased pool of baccalaureate prepared nurses to aid the health care delivery system. Since the majority of hospitalized patients are older adults, such educational access is enhancing the clinical practice of nurses who are employed in medical/surgical and critical care units. In addition, BSN level nurses fill positions in community health and home health agencies as well as nursing homes.

References

Arnold, R.L. (1989, February). Delivering classes to the community: The growth of ITFS and serendipity. Paper presented at the National Seminar on Successful College Administration. Orlando.

Developing computer-assisted learning programs for teaching geriatric therapeutics.

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A significant challenge to the educator involved in multidisciplinary geriatric education include: difficulty in scheduling educational experiences; differences in student knowledge base; meaningful student participation in learning process; and efficient use of faculty. In an attempt to address these problems we have developed a patient case problem, tutorial, computer assisted learning (CAL) program.

The CAL program builds upon the patient case Richard A. in the Upjohn ENDOCAL series. ENDOCAL guides the user through the elements of differential diagnosis and initial therapy of non-insulin dependent diabetes mellitus. Our CAL program emphasizes the clinical use of oral hypoglycemic agents as Richard A. matures and encounters common life experiences that modify his therapy. The program includes information on the selection, dosing, pharmacokinetics, and drug interactions of oral hypoglycemic agents.

HARDWARE REQUIREMENTS: The CAL program was designed to require only the most basic, commonly available IBM-compatible computer, MS DOS 3.2 or higher, a color or monochrome low resolution monitor, a single 360K floppy disk drive. A printer and hard disk are optional enhancements.

SOFTWARE REQUIREMENTS: The CAL program is on a single floppy disk, containing the operating system and the CAL pilot software. To run the program, the end-user inserts the CAL disk into the computer and turns it on. Alternatively the CAL program can be installed on a hard disk and initiated with any menu program or BAT file.

PROGRAM AUTHOR REQUIREMENTS: Program features were established under a previous CAL development grant from the American Association of Colleges of Pharmacy. CAL content and the patient case scenario, are written by expert faculty using any word processor that can create an ASCII document. The only limitations are that information is generated using the standard computer keyboard and is blocked into screen-segments not exceeding 16 single spaced lines, maximum of 66 characters per line, right justified. The author's text is checked by computer for spelling errors (Stedman's Medical Dictionary) and grammar (Gramatik IV).

A basic language program executes the ASCII diskfile, formats and compiles the content using Pilot instructional language. The compiled CAL program can be edited in ASCII format provided that information added or deleted does not alter the number or order of program screens. Within a screen all information can be changed. After final accuracy checks the program is encoded (fixed) with Pilot so that CAL content can not be modified. CAL program disks are then duplicated for distribution. Program content can be updated/modified easily via the same procedure.

USER REQUIREMENTS: It was assumed that the end-user would have little knowledge of computer hardware or software thus the CAL program was self-booting and contains all instructions. The user only needs to know how to insert a floppy disk into the computer and turn on the power to the computer and monitor.

1. **INDIVIDUAL USE TRACKING**: After CAL program imitation, the user is instructed to enter their name and social security number. This data is recorded on the disk and used by the author/instructor to monitor individual use patterns and learning. This feature is essential for CAL use to award course credit or continuing education credit. Since the program can be completed in modular fashion, individual tracking allows the program to inform the user which modules have been completed.

2. **PRE-TEST AND POST-TEST EVALUATIONS**: Multiple choice questions are used for both pre- and post-test evaluation. The pre-test records user baseline knowledge, and also directs their attention to areas of importance. The identical questions are used in the post-test so that a direct comparison can be made and program learning documented. Author review of pre-test responses assists in program revision of information commonly known by the target user group. Comparison of post-test scores provides a means to identify which topics in the CAL program are effective and those that require enhancements or clarifications.

3. **MODULAR MENU SELECTIONS**: The program is divided into 6 modular sections which can be completed in any order that the user chooses. The program tracks the user and the modules completed. If the user wants to repeat a module a message is displayed informing the user that they have already completed that module, but allowing them to proceed if desired. This allows the user to complete all or part of the tutorial during any logon. Preliminary evaluation of prototype CAL lessons indicated that the time to complete a single case scenario varied as much as fourfold. Modular menu selections allows the user to complete only one module per logon. This feature is appreciated by the busy user who has only short blocks of time available to complete the lesson topic. By allowing the user to control the order of instruction and the length of time they spend at any one logon users are able to customize the CAL to their pattern of learning.

4. **ON-SCREEN PROMPTS**: Simple graphic representation appear in the boarder of each screen to provide the user with the proper keys to the 3 basic screen movements: 1. move forward to the next screen 2. move backward to the previous screen 3. Escape from the current module and return to the main menu.

5. **HELP FEATURE**: The help feature provides factual information that the user may need during the patient case scenario. This allow the author to include material in the case scenario that challenges the more advanced user while providing help to a less knowledgeable user. The user can evoke the help feature whenever the help symbol appears in the screen boarder. After using the help menu, the user is returned to the current module and screen.

6. **PATIENT CASE SCENARIO**: To actively engage the user the learning process and to provide a "relevant" learning experience, program content is incorporated into a hypothetical patient case scenario. The patient case is created to exemplify commonly encountered clinical problem in therapy based upon the expert authors experiences. The CAL program begins with a brief review of the patient case, provides background information on etiology, pathogenesis, symptoms, and the diagnostic workup of the disease. The majority of the scenario explores the therapeutic issues based on hypothetical patient response to therapy.

7. **LOOP-REVIEW QUESTIONS**: Periodically the user must correctly respond to a multiple choice question on recently covered CAL material. A correct response provides immediate reward feedback and allows the user to continue. Any incorrect response loops the user to the screen(s) containing the correct response and then returns the user to the loop-review question. Loop-review questions serves to reinforce important concepts and to provide a self check on comprehension.

8. **USER EVALUATION AND COMMENTS**: Upon completion of all CAL modules the program asks the user to responde to a multiple choice program evaluation. The user is also invited to provide open text comments to the author. Evaluations and comments are summarized and are available to the author for use in program revision/modification.

DISCUSSION: The wide availability of IBM compatible computers opens a new avenue for the distribution of education. A single 360K floppy disk can contain the equivalent of 180 type written pages. The ability of the computers to store, organize and record information allows individualization of the learning process. The ability to manipulate information and offer help options, provides an opportunity for user interaction and choices.

Students and health care providers need relevant, convenient means to improve their knowledge of therapeutics. Providers need information on both the drugs and the medical conditions associated with the use of these drugs. Our CAL program emphasizes an understanding of the background and results of drug use in the elderly, and requires the user to make decisions based on their knowledge of the drugs, as they would do in their practice.

Floppy disks containing programs can be updated, duplicated, and mailed at lower cost than printed programed learning material. Our CAL system was designed to be compatible with the most widely available microcomputer system, the IBM-compatible MS DOS system.

Prior experience with this type of instruction in formal courses indicates that students prefer CAL learning to in class lectures. Students were particularly pleased that they can run the program when they are ready to learn and can control the pace of material advancement. Modular design was incorporated based on student comments that this would improve comprehension and be more convenient. Help menus are a result of pre-post test evaluation indicating that more basic factual information is not needed by all users but should be available on request during the program.

Obstacles to developing this form of educational material include:
1. limitation to textual material;
2. lack of a established distribution network for CAL;
3. time require for initial development and debugging;
4. lack of recognition/reward for creative educational approaches;
5. indifference of college administration in improving instructional delivery;
6. lack of universally compatible author system;
7. no commercially available basic language for Pilot compilation
8. multiplicity of incompatible microcomputer systems

The goal of the CAL program is to provide an inexpensive, interactive update on pharmacotherapeutic issues of concern to the student and health care provider. An integral part of achieving broad accessibility to this audience is providing a program which can be done at any time, and completed as time permits. The cost of the program is expected to be reasonable, as the disks can be purchased in quantity for about fifty cents, and development costs should not be excessive per unit if the means can be found to distribute the program to the large target market of geriatric health care students and providers. Our program is based on case presentations presented in the "ENDOCAL" series distributed on computer disks by the Upjohn Company. After the program is tested by students and practitioners we hope to obtain support of Upjohn or other industry sponsor for regional or national distribution. Until then we will cooperate with individuals wishing to develop and use the type of CAL.

IV.

THE PUBLICATION PROCESS: PERILS AND PEARLS

Objectives:

1. Identify a variety of places in which to publish articles in the geriatric/gerontology field.
2. Identify at least four methods that can be employed to self-edit your manuscript prior to final submission.
3. Justify the importance of the recommended style manual in your manuscript development.
4. Describe the major factor in constructive interaction with your editor.
5. Identify the primary components for writing a meeting abstract acceptable for presentation at a professional meeting.

Authors:	Topic:
*Gari-Anne Patzwald, MS University of Kentucky	Peer Review and Locating a Place to Publish
*Davis L. Gardner, MA University of Kentucky	Working With Your Editor
*Stanley R. Saxe, DMD, MSD University of Kentucky	Developing Meeting Abstracts
*Mary K. Walker, PhD, RN University of Kentucky	Writing Monographs and Chapters

*Denotes Presenter

Peer Review and Locating a Place to Publish

Gari-Anne Patzwald
OVAR/GEC, University of Kentucky

Most scholars who submit articles for publication occasionally have the unpleasant experience of having their articles rejected by their journal of first choice. The reason for this rejection is usually the article's failure to make it successfully through the peer review process--a process little understood even by many of those who participate in it.

Recently, there have been several articles about the peer review process in the scientific literature, most notably a series of articles comprising the March 9, 1990 issue of The Journal of the American Medical Association. These articles have identified several factors that tend to affect the way that peer review operates and, consequently, may affect the decisions that peer reviewers make.

For example, peer review is conservative and not receptive to radically new ideas or methodologies. (Horrobin, 1990). John Maddox of the magazine Nature believes that had Nature had rigorous peer review in 1953, the original letter in which Watson and Crick described what turned out to be the correct structure of DNA would probably have been labeled "mere speculation" and rejected. (Maddox, 1989). This tendency to accept the familiar and reject the unfamiliar has been exacerbated by recent discoveries of fabricated and fraudulent research that has been published in a number of journals including some of the most prominent and respected scientific journals. Consequently, it might appear as if one should not be too creative or original if one wishes to have an article accepted for publication and this would seem to be in conflict with the pride that most researchers take in being creative and original. However, what it may actually mean is that it is best to make one's research appear to be as securely within the confines of accepted thought and practice as possible in hopes that its creative aspects will be less obvious.

Secondly, the same people often review for several publications. A 1988 study of 276 reviewers for the American Journal of Public Health found that they had reviewed for 274 other journals during the previous year. The median number of journals for which they had reviewed was 3.6. Ten were even editors of other journals. (Yankauer, 1990). Consequently, it is possible that a single reviewer could be responsible for an article's being rejected by several journals. One should look for similarities in one's rejection letters and be encouraged not to give up after just two or three tries to place an article. (One might hope that reviewers would disqualify themselves from reviewing articles they had seen before, but this may not be done and in a narrow field in which there are few experts, it may not even be possible.)

Thirdly, negative results are less likely to be published than positive results. (Chalmers, 1990). This has resulted in many studies with negative results never being written up at all. One tragic consequence of this is that a number of ineffective drugs continue to be used because their ineffectiveness is not generally known. Little can be done to overcome this problem except to continue to seek out a jounral that will accept an article reporting research with negative results.

Finally, professional prejudice or jealousy, or the discipline or credentials, or even the institutional affiliation of the author, may affect how an article is viewed. Blind peer review should resolve this problem. However, 20% of all medical journals do not practice blind review and even when they do, such factors as the subject of the research or research design may provide certain information about the author or the institution at which the research was done. In a narrow field where most people know who is doing what, it is virtually impossible to hide the identity of the author and/or the institution. And cases of plagiarism and rejection by a reviewer in order to beat the author into print with similar research are not unknown.

There are no foolproof ways to avoid the pitfalls of the peer review system. However, there are several useful resources and strategies that can help the diligent scholar to locate alternate places to publish an article quickly so that he or she can get on with the research for the next attempt to publish where it counts more heavily.

In seeking a place to publish, two factors are important. First, it is considered most creditable to have an article published in a refereed or peer reviewed journal. Secondly, due to the recent advent of citation indexes which make it possible to gain credit toward tenure or promotion at many acadmeic institutions based on how often, by whom and/or in which journal one's article is cited, often regardless of where the article itself was published, it is advisable to seek a journal that is indexed in a major indexing tool or online database.

Usually, it is possible to determine whether or not a particular journal employs peer review by reading the journal's instructions to authors, but at times, this is not clear. In most cases, if two or more copies of an article are requested in the instructions to authors, one may assume that the article is to undergo peer review. However, if one is not certain of the review process of a journal, it may be necessary to contact the editor for clarification. Editor's are usually very willing to comply with such requests as they are as anxious to find good articles as authors are to find good places to publish.

With regard to determining what geriatrics/gerontology journals exist and where they are indexed, there are two particularly useful sources. A 1986 publication by Greenwood Press entitled Serials on Aging: An Analytical Guide, compiled by Shirley B. Hesslein can be a helpful source. It lists 375 serials on aging. They include the entire spectrum from international to fairly local and scholarly to popular. Since this book is a few years old, one should check a recent periodical directory to make certain that the journal selected is still published and to locate its current address.

One source which can be useful for locating both current addresses and places to publish is Ulrich's International Periodicals Directory, popularly known simply as Ulrich's. This tool is arranged by subject and has a gerontology/geriatrics section with cross references to related publications in other sections. Ulrich's also leads the user to a source often overlooked by researchers in the United States, the foreign journal that publishes in English. English is an international scholarly language and many Americans are quite successful in placing articles abroad.

Two other sources that may be useful are The Encyclopedia of Associations and Newsletters in Print. The former lists associations and indicates in the entries for each what, if any, journals or newsletters it publishes. The latter lists newsletters that are published in the United States. Newsletters, while not usually refereed, are sometimes indexed by major indexing services and may be appropriate places to publish shorter, less scholarly articles. Newsletters also often carry announcements of new journals that are being published, of special journal issues for which articles are being sought, or of publishers seeking authors for books or for chapters on specific subjects. The weekly Chronicle of Higher Education has a special section that lists similar announcements as well as calls for conference papers.

One other way to get into print is to get together with others in one's field and put together a monograph. This can be a particularly worthwhile project if an associate who is well known in the field is willing to write an article or introduction or to include a previously published journal article in the monograph.

Finally, ERIC (Resources in Education), a microfiche library of unpublished materials on education, can be a useful place to consider to make materials available to other scholars. ERIC is used by all serious researchers in the field of education and is a good place to submit some items that are unlikely to be published elsewhere such as conference papers, syllabi, curricula, and raw data that may have been collected and not used. For example, several years ago, OVAR/GEC did a study of pharmacy education programs that was accepted for inclusion in ERIC. OVAR/GEC also submits the Summer Geriatric Institute Proceedings to ERIC. The staff at ERIC defines "education" quite broadly and accepts a wide range of materials.

An important consideration in looking for a place to publish when an article is not accepted by the journal of first choice is to find a place that will publish the article quickly and with the least possible revision. Some of the tools mentioned here can help to accomplish that so the researcher can move quickly on to other research and other publications.

Bibliography

ERIC. (Resources in Education). Washington: U.S. Government Printing Office, monthly.

Encyclopedia of Associations. Detroit: Gale Research Co., annual.

Newsletters in Print. Detroit: Gale Research Co., annual.

Serials on Aging: An Analytical Guide. Compiled by Shirley B. Hesslein. New York: Greenwood Press, 1986.

Ulrich's International Periodicals Directory. New York: Bowker, annual. (Includes irregular serials and annuals.)

Sources Cited

Chalmers, I. Underreporting research is scientific misconduct. JAMA. 1990;263:1405-1408.

Horrobin, DF. The philosophical basis of peer review and the suppression of innovation. JAMA 1990;263:1438-1441.

Maddox, J. Where next with peer review? Nature. 1989;339:11.

Yankauer, A. Who are the peer reviewers and how much do they review? JAMA. 1990;263:1338-1340.

WORKING WITH YOUR EDITOR

Davis L. Gardner

The editor with whom you will work is a very important person in the publication process. Understanding the editing process is a key point in both developing your manuscript and maintaining constructive interaction with your editor. In academe, to edit means "to alter, adapt, or refine especially to bring into conformity to a standard or to suit a particular purpose."[1] Every editor confronts three major challenges for each manuscript: evaluation of the manuscript's content (the information presented), honesty (originality and integrity of the content), and literacy (quality and clarity of narrative).[2]

This paper will suggest selected methods that can decrease an editor's need to alter, adapt, or refine. The major emphasis will be on how to edit your own manuscript. Some important rules of construction and guidelines for interaction with your editor are the other two topics that will be addressed briefly.

Editing your own manuscript prior to submission is an essential concept *and* activity for any author. The four basic self-editing methods suggested are reviewing recent issues of journals, adhering to the "Instructions to Authors," requesting a copy of the Review Form criteria, and developing writing mentors. An optional fifth method also will be suggested.

Before your manuscript development begins, the first self-editing activity should be a focused review of recent issues of the particular journal(s) in which you wish to be published. This review can give you insight into the kinds of articles published and can help you identify the organization of the published papers. The *American Medical Association Manual of Style*[3] describes the three basic types of articles they consider: experimental, descriptive,, and review/essay/critique. The *Publication Manual of the American Psychological Association*[4] describes empirical studies, review articles, and theoretical articles as their classifications. The IMRaD (Introduction, Methods, Results and Discussion) formula basically is followed for experimental and empirical studies.[5(961),3(1),4(21)] Peterson[6] has devised a chart to identify the generally accepted essential and optional components for a variety of types of papers. [See Table 1.]

The review also will help you identify the readership. The primary audience for some journals will be experienced practitioners who want highly relevant, clinically applicable articles with limited citations for theory and research. Other journals are very research oriented and prefer papers that have innumerable citations related to the topic. Therefore, an important feature to analyze is how a review of the literature is reported.

From this review, you can determine the average length of articles, and you also should notice the use of headings/subheadings, tables, figures and photographs. Careful attention to the published articles' format for citations and for references can enhance your "professional image" with reviewers and your editor, and it can save you hours of tedious revision. The importance of conforming to format cannot be overemphasized! Although

TABLE 1 -- Types of papers and their components [6]

Type of paper	Indispensable parts	Often necessary parts	Optional parts	May be combined with these types
Case report(s)	Statement of purpose Case history or histories	Discussion, with references to literature Illustrations Summary	Review of literature Conclusions	Any other type, with appropriate modifications
Review	Systematic reporting of literature, with reference data; interpretation or recommendation	Critical comments, with good backing Summary	Charts or illustrations	Any other type
Clinical research report	Statement of purpose Methods and materials Results	Discussion Brief review, with references Conclusions Summary	Charts, tables, graphs Illustrations Case histories	Case reports Review
Technical description	Statement of rationale Clear and complete description	Illustrations Brief review, with references Discussion Summary	Case histories	Review Case reports Clinical research reports
Clinical note	Statement of purpose Description of clinical experience	Review of related literature References Illustrations	Case histories	Case report Literature review Technical description
Essay (of some type)	An original idea or synthesis A main point or points, logically developed and substantiated	References and quotations	Illustrations, tabulations	Review, as adapted Possibly case material

the journal will reference a particular Style Manual for authors' guidance, modifications of that Style Manual's dictates often are practiced.

As you develop your manuscript, initial attention to the reader audience; essential content; and correct formats for headings, citations, references, and illustrations will increase the time and energy available for your attention to content. Stated another way, the time you spend in a focused review of published articles will save you time in revisions.

The second essential self-editing process is a careful study of the journal's "Instructions to Authors" or "Guide to Contributors". An Assistant Editor of the British Medical Journal, states that "...clearly many of the authors who submit papers have never read them [i.e. Instructions]. Editors are irritated by authors who make no attempt to adapt to the journal but seem to feel that the journal should adapt to them."5(962)

The main purposes of the Instructions are to give specific information on formatting and on style. Among 117 AIM (Abridged Index Medicus) medical titles, 102 journals published Instructions. However, only 73 of the 102 journals were presumed to publish Instructions in every issue, based on Instructions appearing in three consecutive 1986 issues7(312) as contrasted to publishing them on an annual or some other periodic basis.

Some Instructions were very specific with details such as the information required on the title page, use of abbreviations, and other technical requirements.7(313) Some Instructions may make direct or indirect reference to the review process. A reference to the "Uniform Requirements" will be found in some Instructions. A "Uniform Requirements" document evolved from a 1978 meeting of the International Committee of Medical Journal Editors, and by 1982, 150 biomedical journal editors had adopted this document that identified uniform technical requirements.7(313) Other Instructions will identify the recommended style manual authors should use, will identify the journal's primary subject content and the readership. Most will specify the number of copies to be submitted with the original manuscript.

The treatment of subjects also may be addressed in the Instructions. The World Medical Association adopted a code of ethics in 1964 "...outlining the proper way to conduct experiments on humans."7(313) This code, known originally as the **Helsinki Declaration**, has become the basis for our Institutional Review Boards, If human or animal subjects are involved, you must determine well in advance the kind of verification statement you need.

Instructions should include notification of the legal statements you will sign when a manuscript is accepted for publication. These statements generally address originality of work, information on prior or pending publication of the manuscript, informed consent, and conflict of interest due to support from vested interests. Assigning the copyright to the publisher is standard.

Careful attention to the Instructions to Authors is critical to your work with your editor and to the successful submission of your manuscript. Again, you spend preliminary time to avoid having to spend time and energy sorting out misunderstandings.

The third self-editing process is to request a copy of the form that is used in the manuscript review process. Knowing the criteria that the reviewers will use can be very helpful as you develop your manuscript. With this information, you initially can conform to these criteria.

The fourth self-editing process recommended is developing mentors from both your discipline[8] and the English Department or the Writing Center. Experienced authors also may be reviewers for journals, and their critique prior to submission may make the difference in a rejection or acceptance with revision.

An optional fifth self-editing process is available through word processing systems. Several software programs are available for checking spelling and some grammar constructions. Matzkin[9] describes the functions performed, the strengths, and the weakness of "Grammatick", "Right Writer", "Perfect Grammar", and "Volkswrite 4". Interestingly, Dudley states "that, since the advent of word processing, standards of presentation have gone down."[10] He discusses a variety of interesting and helpful points in relation to writers' use of word processors that can encourage or discourage reviewers. The mechanics of any system do not replace the author's attention to clarity and precision in the manuscript.

Grammar school may been years ago, but some basic rules of construction appear to be timeless--the third major method recommended to assist you successfully develop your manuscript and to diminish your editor's need to edit. The style manual recommended by the selected journal must become an integral part of your manuscript development and self-editing processes. When the outline for your manuscript is developed and the actual writing begins, your prime objectives are clarity and precision. Strategies to help you achieve these objectives include writing, reviewing [self and by others], and obviously--rewriting. Written communication cannot depend on oral or nonverbal nuances for clarity and precision; therefore the importance of correct grammar and sentence construction is justified.

Examples of common errors are subject-verb disagreement, misplaced and dangling modifiers, parallel construction errors, and sexist language. Style manuals give specific guidelines for grammar, punctuation and abbreviations and are to be followed in the narrative, in illustrations, and in the reference section. Both style manuals referenced earlier in this paper give extensive and precise rules and examples that need to be studied--and used.[3,4] Your meticulous attention to citations both in the text and in the Reference section is guided by the style manual and previous journal issues. Clarity and precision depend of these critical rules of construction.

COMMUNICATION IS THE KEY for constructive interaction with your editor, the fourth and final topic. Communication should be based on two premises: the knowledge that (1) the editor has to evaluate the content, honesty, and literacy of your manuscript; and (2) the editor's intent is to help you produce the best possible manuscript. The editor's professional investment in the issue exceeds yours!

Editors work with multiple authors thus increasing the need for clear communication. You must have a clear understanding of your editor's expectations. Due dates for outlines, drafts, the manuscript, and signed forms are very important because your editor also has due dates with the publisher that must be met.

You also have the responsibility to notify the editor of any delays or problems that may alter your capability to meet expectations. Correspondence with or calls to your editor are appropriate when you have a problem that needs the editor's opinion or assistance. Dated memoranda to yourself of conversations summarizing the topic(s) and decision(s) will facilitate any future conversations that may become necessary to prevent repetition or confusion about previous decisions or agreements.

An open and non-defensive attitude may be difficult to establish and maintain when, based on the reviewers and your editor's recommendations, revisions are recommended. The two bases for constructive communication and interaction--the editor's responsibilities and intent to assist you--must be accepted. In my experience, every manuscript has been improved as a result of the review process. Clarity and precision were enhanced, and increased satisfaction in the manuscript was expressed.

Self-editing, observing important rules of construction to achieve clarity and precision, and establishing productive communication with your editor can remove many of the publication perils experienced by authors. Writing, then, becomes an exciting and rewarding growth experience.

References

1. Webster New Collegiate Dictionary. Springfield, MA: G. & C. Merriam Company; 1973. 361.
2. Feinstein AR & Spitzer WO. Who checks what in the divided responsibilities of editors and authors? J Clin Epidemiol 41;10:945-946.
3. American Medical Association Manual of Style. 8th ed. Baltimore, MD: Williams & Wilkins; 1989;1-2.
4. Publication Manual of the American Psychological Association. 3rd ed. Washington, D.C.: American Psychological Association; 1983;21.
5. Smith R. How to get published. The Practitioner. July 1987;231.
6. Peterson B. Types of papers and their components. Presented at University of Illinois Geriatric Education Center; 1990; Chicago, IL.
7. Weller AC. Editorial policy and the assessment of quality. Bull Med Libr Assoc. October 1987;75:4.
8. Hodges LC & Poteet GW. Strategies for journal publication. J Neurosci Nurs 20;6:386-389.
9. Matzkin J. Grammar checkers improve, but won't replace your English Teacher. PC Magazine, Mar 13, 1990. 46.
10. Dudley H. How to encourage a referee: Use your word processor carefully. Br Med J 1989;299:1614-6.

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